a W. R. C. Smith publication

Textile Industries

Formerly "COTTON"

MAY, 1955

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Serving America's Textile Leaders

The multi-million dollar modernization program now underway at the Southern Bleachery and Print Works, Inc., at Taylors, S. C., highlights the significant growth of this outstanding firm.

This comprehensive modernization throughout the mill includes several large additions to existing facilities, installation of the latest high-production machinery and equipment and rearrangement of production flow along modern lines

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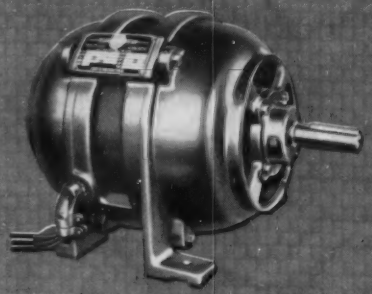
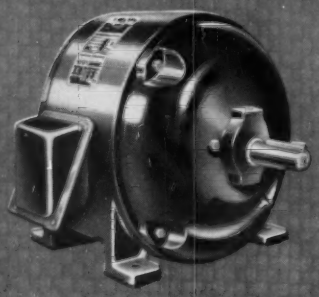
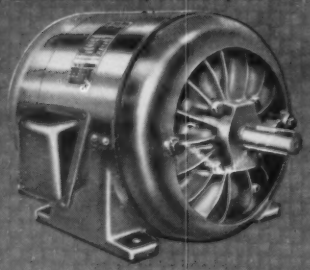
for every textile application



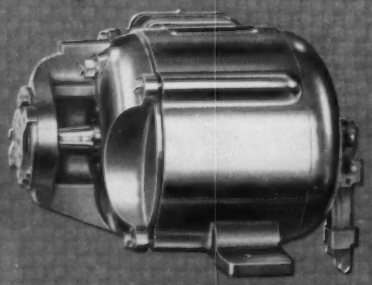
FOR LINT-FILLED ATMOSPHERES *specify* a **DIEHL Type "DIT" Lint-Free Motor. In all mill operations where fly is present, the special construction of this motor assures protection and long life. Special features—rigid end cover construction and Hyatt roller bearing at pulley end.**



FOR GENERAL MILL APPLICATION *specify* a **DIEHL Type "DI" Standard Motor. An economical and versatile power plant, it is adaptable to compressors, pumps, conveyors, air conditioners, blowers, etc.**



FOR FINISHING AND DYE PLANTS *specify* a **DIEHL Type "DIF" Totally Enclosed Fan-Cooled Motor. Complete protection of the internal parts is provided by a full enclosure; high efficiency is aided by the cooling effect of the large external fan.**



FOR DRIVING LOOMS *specify* a **DIEHL Power Transmitter. The construction and "built-in" inertia of this integrated unit permit maximum weaving speeds with greatest operating efficiency.**

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Diehl

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- ☐ New Type "D" Motor Bulletin No. TI-3304
- ☐ Consolidated Motor Catalog and Price List No. TI-3310
- ☐ Power Transmitter Bulletin No. TI-3126

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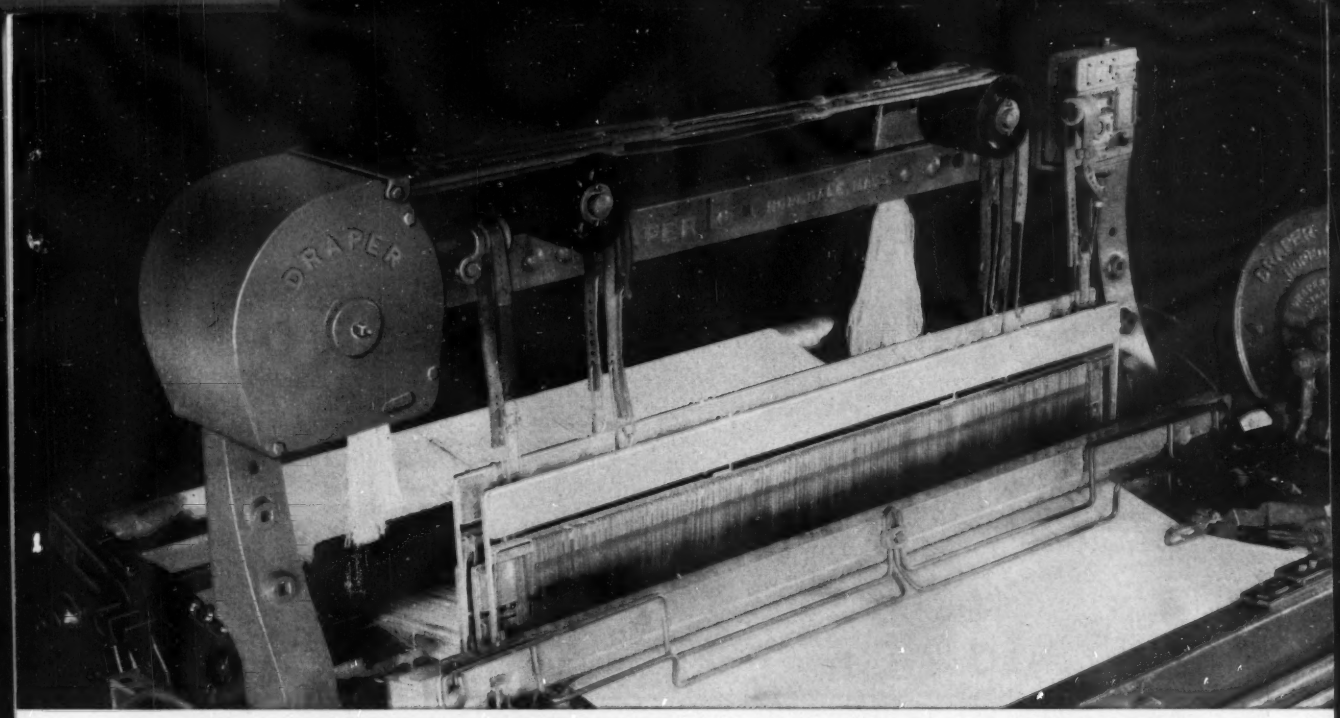

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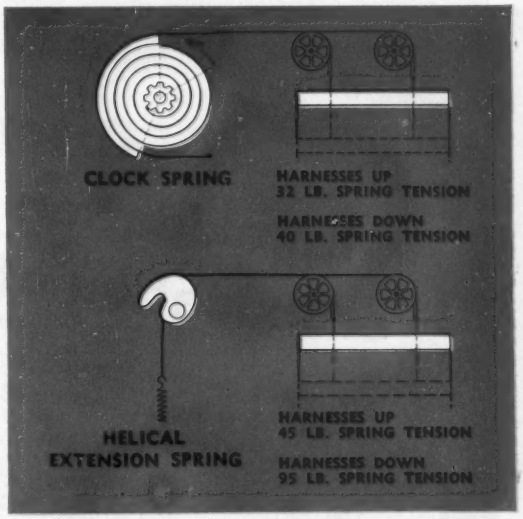
The totally enclosed Clock Spring Top Motion with its easy harness action reduces wear on all component parts, increases production and lowers costs.

*Patented



With Clock Spring Top, spring tension increases 8 lbs. or 25%.

With Helical Spring Top, initial tension is higher and spring tension increases an additional 50 lbs. or 111%.

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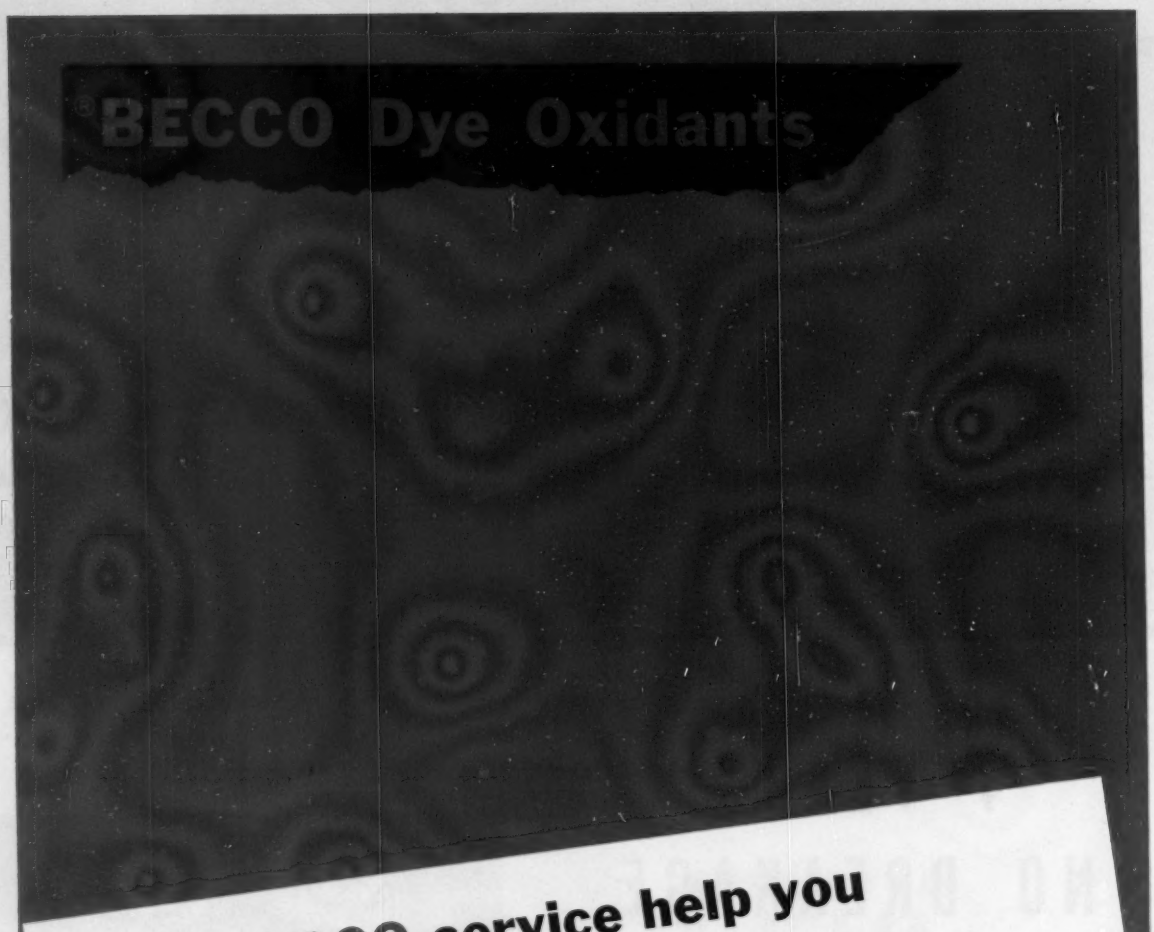

Can BECCO service help you with oxidation of sulfur colors or oxidation of vat dyes?

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You can count on prompt delivery by tank car, truck or drum of Becco chemicals of high purity and reactive effect.

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49. Ammonium Persulfate

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Textile Industries

Formerly "COTTON"

Vol. 119, No. 5
May, 1955

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TEXTILE INDUSTRIES is published monthly at 116 E. Crawford St., Dalton, Ga., by W. R. C. Publishing Company, Dalton and Atlanta, Ga., U. S. A. W. J. Rooke, chairman of the board; R. P. Smith, president. Executive and Editorial Offices: 806 Peachtree St., N. E., Atlanta 5, Ga.
Subscription Rates: United States and Possessions, $2.00 for one year; Canada, South America, Central America, $2.00 per year; Foreign Countries, $5.00 per year.
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Shorts and Remnants

By J. C. C.

► No, Miss Madigan, that March TI front cover wasn't green just for St. Patrick's Day; and next year, cross our hearts, we will try to remind our readers of March 17 even if the good Saint actually did not drive the snakes from Ireland.

► Fact is, quite a few of TI's advertisers seem to go in for green, starting in this month with the famed "Draper green" and ending with Anderson-Clayton's cotton ad on the last page. Maybe it's the grass and trees coming out—maybe it's all part of a swing toward color, color, and more color.

► Look at automobiles in all the colors of the rainbow. Remember when Henry Ford offered any color the customer wanted as long as it was black. But then there's that blue note about the price tag on those buggies and the long green it takes to roll one off the floor today. As late as 1924 Henry had a standard model for $290 (no extras), but there wasn't a self starter.

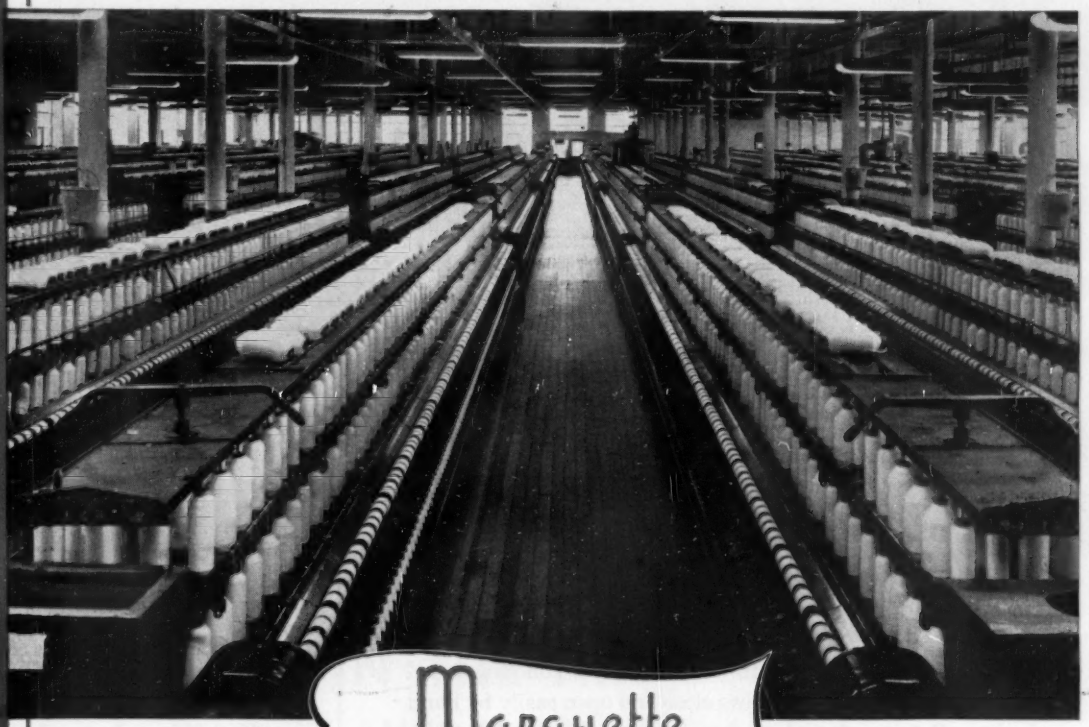
► Color takes over in textiles, too —men going in for it as well as women with fancy socks and shirts. We even hear tell of colored shoes for men, but don't blame us if we whistle at the first pair of those we see. Like the boys wearing the shorts right downtown last summer. Anyway, colors and all, it looks like a field day for the dyestuff boys—also, no more red ink for textile mill earnings sheets. That should be all on the color subject for this month.

► An encouraging note in a report on the increased business and backlog of Universal Winding Co. credits it in part to the trend toward "stretch" hosiery and applications of the "stretch" principle to other textiles. Sounds good, even if Dad's socks do get mixed up here and there with the bobby sox. Maybe they can apply the stretch to S & R's dollars. There is something for Universal and the Helanca folks to work on.

► Corn Industries Research Foundation, Inc., wants to know what we would do if a truck should drive up to our door tomorrow and unload 18

3/4¢ PER SPINDLE

for replacement parts and repairs



Marquette

ROLLER BEARING SPINDLES with full-floating footstep bearing . . . *for all textiles*

Starting with an installation of 13,800 Marquette Roller Bearing Spindles in 1946, this important South Carolina mill has since purchased a total of *74,422.*

In all these years they have spent *only $546* for replacement parts and repairs—*or $.0073 per spindle!* Marquette Spindles have other cost-saving features, too. They save on lubrication, tapes and power.

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Shorts and Remnants

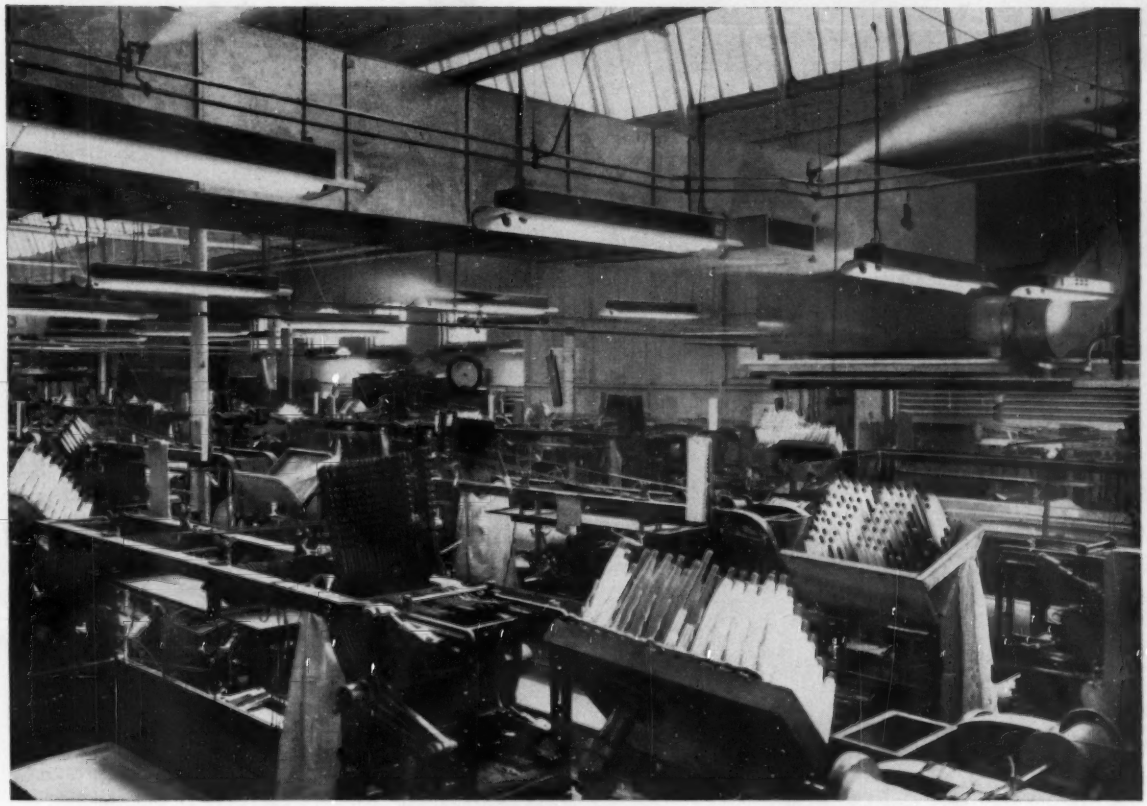
bushels of shelled corn (our share of the 1954 crop). Well, in the first place tomorrow is Sunday and we would probably not be home, and in the second place (as any reader of this here section knows) ole S & R has plenty of corn—plenty!

► TI editors always try to give the reader something to "get their teeth in." Little Andrea Dockray seems to

be literally "eating it up." She probably enjoys anything cooked up by her father and associate editor George D. And maybe it isn't cheesecake but it's feminine.

► **Gilbert A. Norcutt** of Henderson, Kentucky, believes that "the Packard nuclear automatic water conditioner units are the most basic rediscovery since the advent of the electric light, assuming of course that the two previous civilizations, Lumeria and Atlantis, used all these elements for their problems." We wouldn't know about that—before our time, I guess; but he does say it would be an honor and pleasure to have us stop by as they have the Audobon Memorial Park, Dade Park race track, and a "number of other things of intrigue" that they are happy to live with. Well, suh, if that offer includes a good ole Kentucky mint julep while our Temperance Editor isn't looking we might stop by sometime.

► Just so you won't get the idea that our only readers are Kentucky Senators, editors' fond offspring, cocker spaniels, etc., we are happy to say that requests for reprints of "Fibers for the Future" (Jan. '55) continue to come in. Among those coming in since the lists carried here the



Unit Dry-Duct System installed at Rhode Island Fabrics Company, Pawtucket, Rhode Island

PROFIT'S IN THE AIR

. . . with AMCO Unit Dry-Duct Air Conditioning

In a textile mill, reliable, efficient air conditioning can be a big factor in the profit picture. When floor space is at a premium, a central station installation may be out of the question. Faced with this problem, many mills have found a profitable answer in the Amco Unit Dry-Duct System.

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The Unit Dry-Duct System is only one of the many types of air-conditioning systems manufactured, engineered, and installed by Amco. The facts about textile mill air conditioning — the advantages and disadvantages of each type of system — are fully covered in Amco's booklet "Air Conditioning for the Textile Industry." Write today for your own copy of this Amco booklet.

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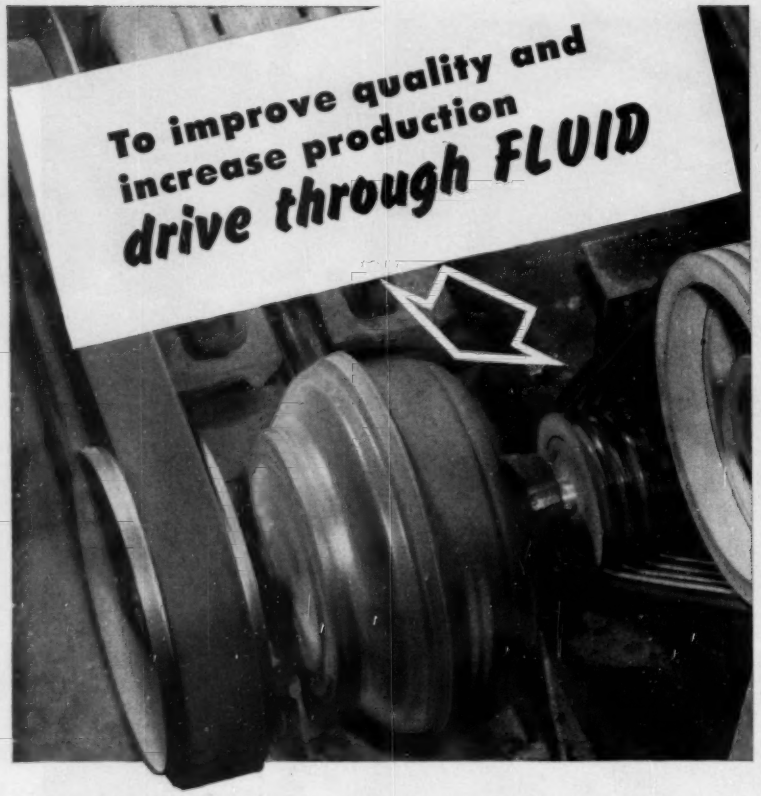

The HYDRO-WYND® Drive, typical of the wide variety of Fluid Coupling applications developed by Twin Disc. By automatically maintaining predetermined tensions while roll rpm decreases and roll diameter increases, the HYDRO-WYND masterminds winding and tensioning operations.

On literally *thousands* of powered installations in textile plants, textile producers have *improved* product quality and *increased* production *by driving equipment through Twin Disc Fluid Couplings.* They have been profitably applied on spinning frames, garnett machines, friction calenders, card drives, tenter frames, embossers, twisters, finishers, winders, and many, many others.

Here, briefly, is how they did it: by having the Fluid Couplings installed between power source and driven equipment, they *eliminated* mechanical connection. Thus through the cushioned drive of *fluid,* they *eliminated* the jerks, jams, vibrations, and overloads that cause end-breaking, snapping, plugging, and stretching *plus* motor burn-outs and equipment damage. In many cases, they were able to replace motors selected for starting requirements with lower-cost motors selected for *running* requirements. And through the Twin Disc *Twin-Circuit* design, they are getting *full input torque transmitted at all times.*

Whatever type equipment is giving you a problem through mechanical drive, in all probability Twin Disc can *solve* it . . . *with a complete line of Fluid Couplings for ¾ to 850 horsepower.* For further information on how Fluid Couplings can solve your specific problems, write Dept DS, Racine, Wisc.

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Shorts and Remnants

last two months are requests from **Waldemar R. Kuenzel,** V. P., Deering, Milliken & Co., N. Y.; **Manufaktur Aktie Bolaget I Malmo,** Sweden; **M. A. Taves,** Hercules Powder Co., Wilmington, Del.; General Laboratories, **U. S. Rubber Co.,** Passaic, N. J.; **National Research Council,** Ottawa, Canada; Librarian, **Warner & Swasey Co.,** Cleveland, Ohio; Business and Technical Library, **American Enka Corp.,** Enka, N. C.; **Osterreichisches Produktivitats-Zentrum,** Wein, Austria; **J. B. Quig,** Textile Fibers Dept., E. I. du Pont de Nemours & Co., Inc.; **C. A. Amick,** American Cyanamid Co., Bound Brook, N. J.; **James L. Parker,** Stafford (Conn.) Printers; **Edward C. Milde,** M. J. Whittall Associates, Inc., Worcester, Mass.; **Paul Sherman,** Pacific Mills, N. Y.

► Also included have been at least three from **SRRL** New Orleans, La., further textile school librarians ranging as far as Manchester, England, and one request from National Development Co. Textile Mills, Manila, Philippines, saying "we found the section . . . very interesting and informative . . . we are all chemists employed in the Textile Finishing Plant. . . . " and signed individually by **Juan S. Rios, Francisco A. Arizabal, Melencia E. Villes, Vicente F. Maceda.**

► Our April issue carried a story on the Cotton [Research] Clinic, and we didn't even know cotton was sick.

► Since we are on the subject, here it is time for NATIONAL COTTON WEEK (May 9-14) and nary a

publicity shot of the Maid of Cotton to call attention to this. So we wired the National Cotton Council for a picture and here's what they sent.

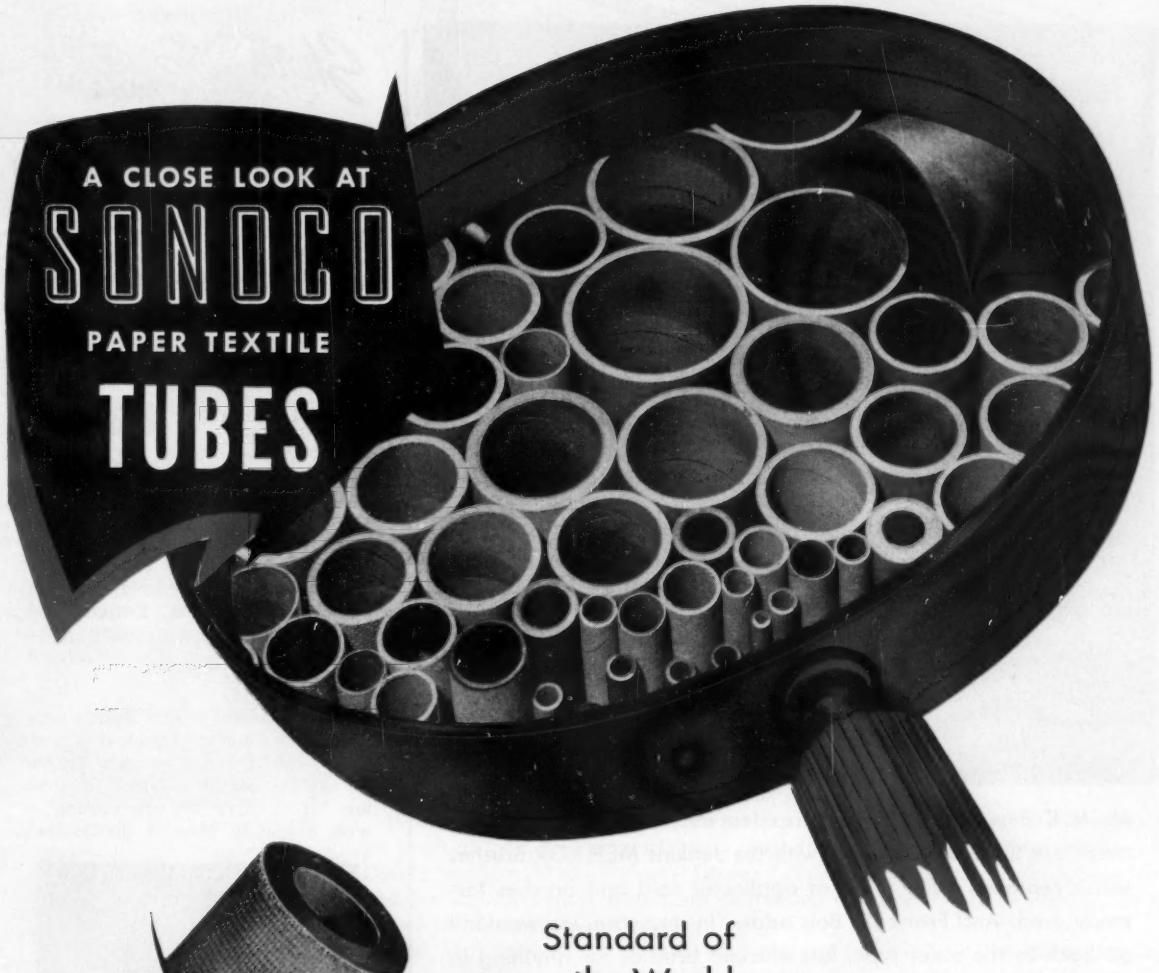
► May is a big month for National

A CLOSE LOOK AT

SONOCO

PAPER TEXTILE

TUBES



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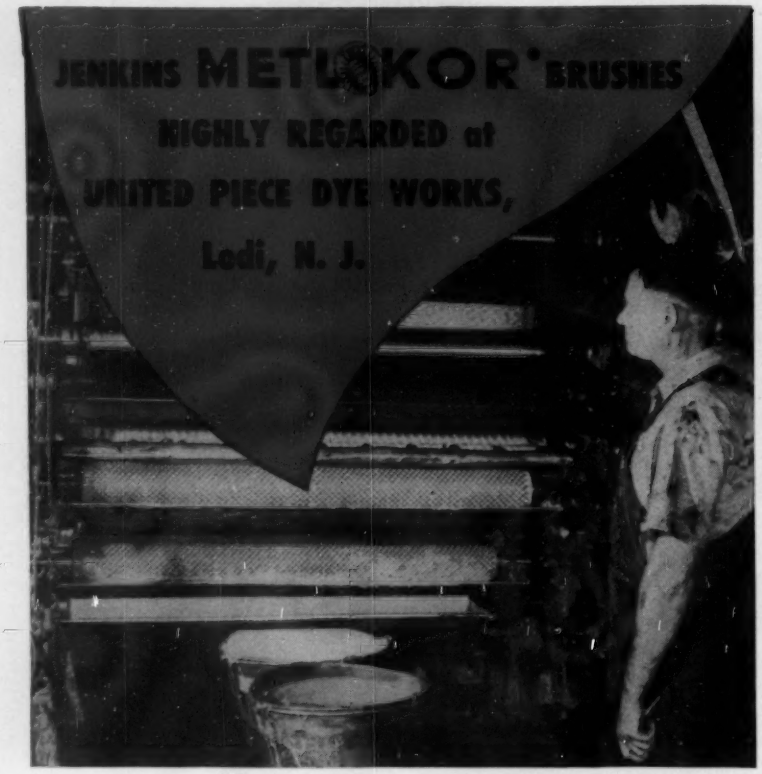
PAPER CARRIERS
REG. U.S. PAT. OFF.

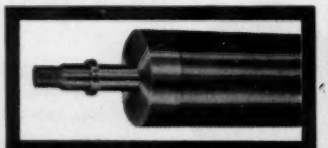


Mr. M. K. Emerson, U.P.D. vice-president in charge of printing, says they "are more than happy" with the Jenkins METLKOR Brushes which replaced other types of applicator rolls and brushes formerly used. And Frank Du Bois adds: "In any case, we wouldn't go back to the older type, less efficient brushes for anything in the world."

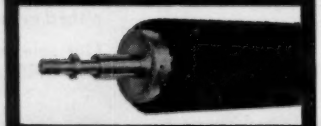
Such commendations from men who know, who demand the best brushes for a given job, is further assurance that you, too, can be certain of getting *the best brush for every textile brushing application* from Jenkins.

Our engineering services are available for analysis of your brush problems without charge or obligation.

Write or telephone your brush requirements.



The new METLKOR has stainless steel end plugs, is lighter, more corrosion-resistant. The stainless steel gudgeons and aluminum tubing are still retained.



This Nylon-filled Jenkins METLKOR furnisher brush shows the new and improved bronze end ring and stainless steel end plug.

M. W. JENKINS' SONS, INC.

Over Three-Quarters Century of Pioneering Brushes for Industry.

Cedar Grove, Essex County, New Jersey

TELEPHONE Verona 8-5337

Shorts and Remnants

Weeks. Following up National Cotton Week will be Chemical Progress Week, May 16-21. If they will trot out a Maid of Rayon or Queen of Synthetics we will put her in this spot next month.

► **George F. Judd** of Austin, Texas, is opening a dry goods store and wants our price lists and samples. A lady from San Diego, Calif., sends a half dozen poems and says she has 30 more. The Kuljian Corp., engineers and contractors, sends a news release from the Zoological Society of Philadelphia about a young lady tiger arriving at the zoo. Seems it was brought 9,000 miles by air from Calcutta by **Harry A. Kuljian.** Now if they will send us a picture of her reading TI, ole S & R will certainly publish it.

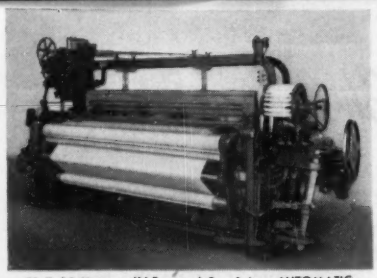
► We thought it was March coming in like a lion, but ole S & R is always late, so while we are on the interesting textile subject of lions and tigers, here we are coming in with a lion in May—a textile lion,

though, with **P. C. Gregory** (left) Gen. Mgr. of Union Bleachery, Greenville, S. C., looking over an 8-month-old lion cub with **Nelson S. Knaggs,** V. P., Hilton-Davis Chemical Co. This picture was taken at 51st annual banquet of the Explorers' Club, N. Y., as Mr. Knaggs is also a noted explorer.

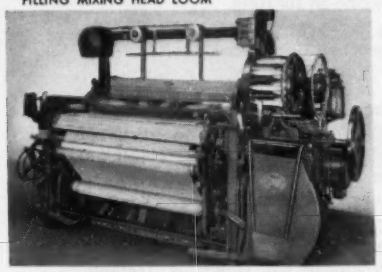
► Look out for Tufted Textiles next month. Our editors have been watching the rapid progress of Tufted, and it's due for the works in our June issue. They may be tough on Tufted, but after all it's a *rugged* industry. Ouch! Watch for it anyway.

"Best In Its Field"

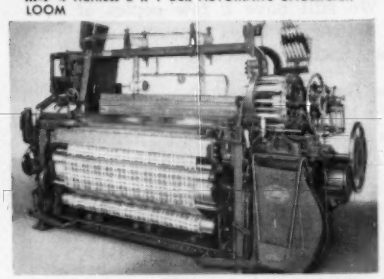
" . . . We wish to congratulate you



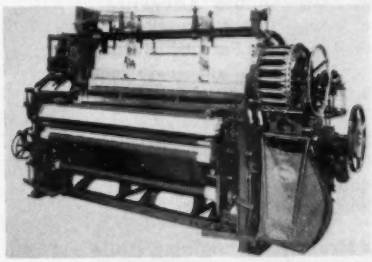
M-P 20 Harness (⅛" space) 2 x 1 box AUTOMATIC FILLING MIXING HEAD LOOM



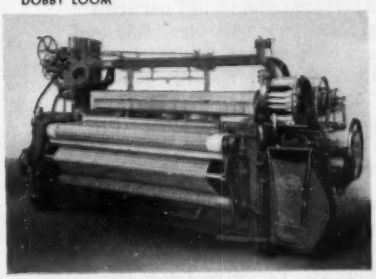
M-P 4 Harness 2 x 1 box AUTOMATIC UNDERCAM LOOM



M-P 20 Harness (15/32" ga.) 4 x 1 box AUTOMATIC DOBBY LOOM



M-P 20 Harness (15/32" ga.) 2 x 1 box AUTOMATIC DOBBY LOOM



M-P 25 Harness (4/10" space) 4 x 1 box AUTOMATIC HEAD LOOM

These are both SOUND POLICIES

It's a good bet that you're adequately covered by insurance on yourself, your house and your property. *But what about your weave room?*

What sounder business insurance can you take out on your mill than a reasonable program of loom-replacement (each year, 10% of your least efficient looms) with C&K's modern Multi-Purpose Looms . . . both for their immediate benefits . . . and for the even more important protection of *convertibility as required* to meet future trends in fashion.

And *M-P Convertibility* means that you can have . . . on the same basic loom-frame . . . a wide choice of letoffs, takeups, shedding mechanisms, feelers . . . as well as lay constructions in an unmatched range from single shuttle, single color to 7 shuttles, 7 colors.

That's why **M-P** means **M**ore **P**rotection for your **M**ill **P**rofits in the future . . . and why it will pay you to *see C&K today.*

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Fabrics . . . which are **WOVEN** Fabrics.

THESE NEW M-P FEATURES CONTRIBUTE → TO THESE PROFIT FACTORS

	Better Quality	Increased Work Assignments	Increased Production (Speed X Efficiency)	Lower Maintenance	Versatility
Rotary Magazine: For single color, or for multiple-color work (up to 4).	✓	✓	✓	✓	✓
Scissors Thread Cutter	✓	✓	✓	✓	✓
Vacuum Filling Control	✓	✓	✓		✓
Cone Picking		✓	✓	✓	
More Rugged Basic Frame: Common to all **M-P** Looms.		✓	✓	✓	✓
Letoffs: New composite type. Also other standard and special types.	✓	✓		✓	✓
Takeups: All purpose, silk, or lower winding roll.	✓				✓
Lay: Precision-built and convertible — 1x1, 2x1, 4x1, 4x2, and 4x4	✓	✓	✓	✓	✓
Shedding Mechanisms: Knowles Head — 25 Harness, 4/10" Space Knowles Head — 20 Harness, 1/2" Space Dobby — 20 Harness, 15/32" Gauge Undercam Jacquard	✓	✓	✓	✓	✓
Feelers: As required.	✓	✓	✓		✓
Driving & Shipping	✓	✓	✓	✓	

PRECISION, STRENGTH, SIMPLICITY Throughout Every **M-P** Loom

Crompton & Knowles LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

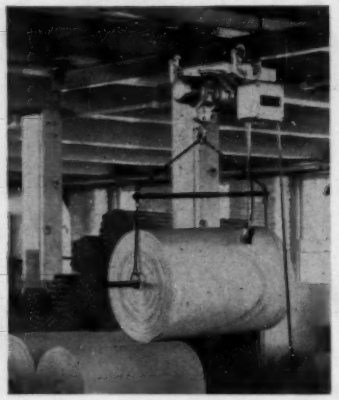
Charlotte, N. C. • Philadelphia, Pa. • Allentown, Pa.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

Crompton & Knowles of Canada Limited, Montreal, Quebec

SHEPARD NILES Floor-Operated Hoist

Operator mainly occupied with other duties. Hoist used for fast, efficient handling of relatively short hauls.



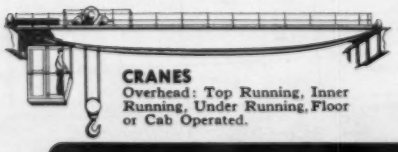
WHICH HOIST is RIGHT FOR YOUR JOB?

SHEPARD NILES Cab-Operated Hoist

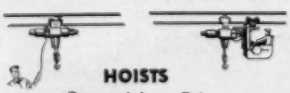
Operator in cab moves loads along at high speeds . . . occupies best vantage point for spotting or stacking materials.

Let the Shepard Niles representative in your area guide you in your choice. He specializes in through-the-air handling . . . can help you select the hoist that best fits your job. Write Shepard Niles today for latest bulletins describing both types of hoists . . . and ask to have a representative stop by your office.

America's Most Complete Line of Cranes and Hoists since 1903



CRANES
Overhead: Top Running, Inner Running, Under Running, Floor or Cab Operated.



HOISTS
Operated from Cab, Floor or Pulpit.

SHEPARD NILES
CRANE AND HOIST CORPORATION
1965 Schuyler Ave., Montour Falls, N. Y.

Shorts and Remnants

on the vast amount of information that is to be found in TEXTILE INDUSTRIES for we find it to be the best magazine in its field. . . . "

DAVID KAYE
Transocean Commerce, Inc.
New York, N. Y.

Training Seamers (1953)

" . . . We should be grateful if you could possibly let us have about one dozen copies [Training Seamer Operatives, Apr. '53] . . . "

R. DUNN
Berkshire Knitting (Ulster) Ltd.
Newtownards Co. Down, N. Ireland

► We still have a few copies of this article, widely reprinted for hosiery trade.

Saves Back Issues

"We have been saving for several years back issues of your journal and now we are planning to bind same for our library. . . "

WILLIAM F. LUTHER
Dir. Research
Dixie Mercerizing Co.
Chattanooga, Tenn.

Maybe They Should Advertise

"We would like to get complete details on the Pacific Evenness Tester, but we are unable to locate the name of the manufacturer from our records. . . . "

W. SNADDON
Pur. Agt.
Hamilton Cotton Co., Ltd.
Hamilton, Ontario, Canada

Wants Hosiery Packaging Details

" . . . I wonder if you would send us literature and full particulars [Berrypaker machine, Mar. '55] and advise whether there is a machine in operation in our vicinity that we may look at."

C. HARRY LANDENBERGER
J. W. Landenberger & Co.
Philadelphia, Pa.

Mercerizing Article Praised

"We have read with great interest the excellent article by Sidney M. Edelstein on 'Practical Piece Goods Mercerizing' [Mar. '55]. Are reprints of this article available? . . . "

LOUIS B. COOK
Res. Dir.
Millville Mfg. Co.
Millville, N. J.

"I do not usually write to magazine publishers. However, the article 'Practical Piece Goods Mercerizing'

CRUSH-RESISTANT, WRINKLE-DEFYING

COTTONS THAT MANY WASHINGS

WON'T DISCOURAGE—YOURS WITH

RHONITE R-1*

Our wise little owl knows that cotton dress goods (or rayons or blended fabrics) become wonderfully wrinkle-resistant when treated with RHONITE R-1. Even repeated washings won't take away their fresh, springy beauty.

RHONITE R-1 treated fabrics can be calender-finished for a wide range of effects—from friction to deep embossed, from plain to moiré.

RHONITE R-1 is another dependable chemical product for the textile industry made by the makers of LYKOPON.

CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

RHONITE *and* LYKOPON *are trade-marks, Reg. U.S. Pat. Off. and in principal foreign countries.*

Stop hand oiling start increasing production with BIJUR AUTOMATIC LUBRICATION

Hand lubrication of textile machinery is obsolete. Leading textile mills, following the trend toward greater automation, have switched to automatic lubrication.

Bijur Automatic Lubrication makes costly, laborious, hand oiling a thing of the past. It insures more production from every machine by doing away with the major cause of textile machinery breakdowns—faulty lubrication. And still more productive time is added by eliminating down-time for hand oiling. Every bearing, even the most inaccessible, is fed the right quantity of oil at the right time.

Savings in oil consumption can exceed 50%. Work spoilage is avoided. Danger of fire is reduced and causes of accidents are removed. When you eliminate outmoded methods of lubrication, you will see immediate results in dollars-and-cents. 1032

Colorful, new bulletin, "From Fibre to Fabric," shows the practical benefit that Bijur Automatic Lubrication offers to the Textile Industry. Write for your copy.

BIJUR LUBRICATING CORPORATION
Rochelle Park, New Jersey
Pioneers in Automatic Lubrication

0-7

Shorts and Remnants

. . . is so well written, so practical and so authoritative that I must express my appreciation. My long practical experience confirms all the facts so well stated by Mr. Edelstein. This issue of TEXTILE INDUSTRIES is being circulated among all of our personnel who are even remotely interested in this subject."

J. E. BROWN
Gen. Supt.
Gregg Dyeing Co.
Graniteville, S. C.

► Thank you, Mr. Brown and Mr. Cook. Reprints of this good article are available from Dexter Chemical Corp., 819 Edgewater Rd., New York, N. Y.

February Best Ever Printed

"Congratulations on the February issue of your magazine. It is the best to have ever been printed within my reading experience. . . "

R. J. TUCKER, JR.
Asst. Supt.
Roanoke Mills Co.
Roanoke Rapids, N. C.

More on "Honeydew"

"We are interested in finding out a little more about honeydew and we understand that in your December, 1953, issue . . . you had an article 'A Rapid Test For Honeydew'."

CHAS. THOMPSON
Mgr., Cotton & Waste Div.
Martha Mills
Silvertown, Ga.

"You Can Make Better Cloth"

"If convenient, we will appreciate receiving six copies or reprints of your article 'You Can Make Better Cloth' [Mar. '55] . . . "

W. B. MUNSON III
Pres.
Denison Cotton Mill Co.
Denison, Texas

Water Heaters

"We are very much interested in Case 28 [Feb. '55] on a 'Pick Instantaneous Water Heater.' We shall appreciate your giving us the address. . . . "

DAVID OLKEN
Dyecraftsmen, Inc.
Hingham, Mass.

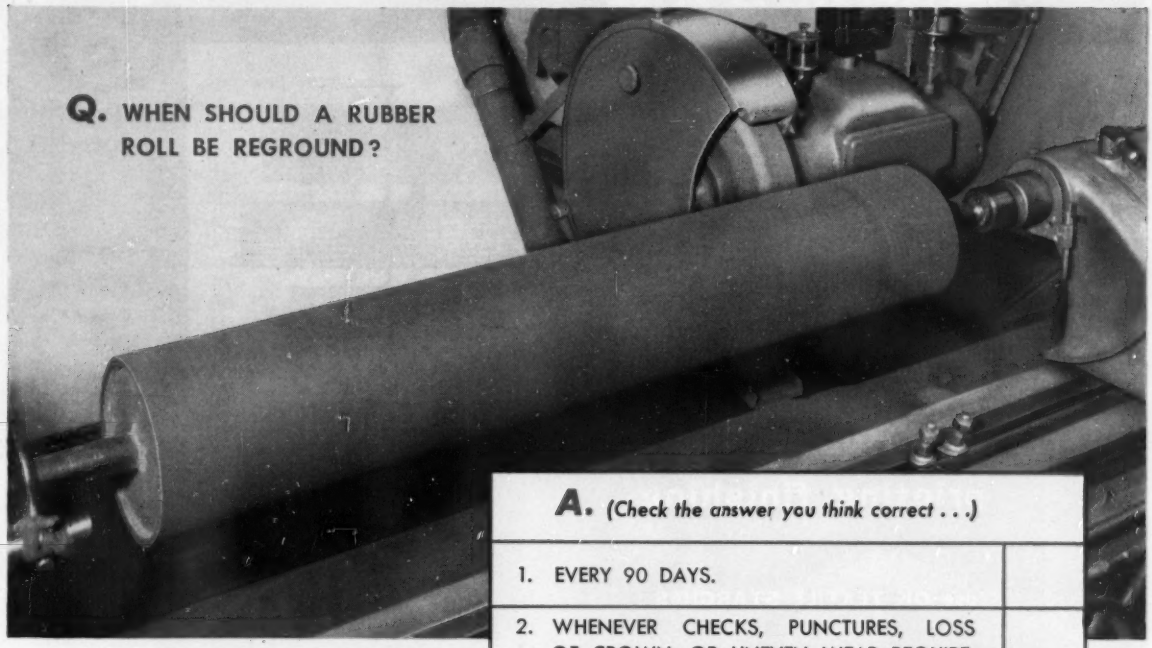
► O. K. The Pick Company is in Watertown, Wisconsin.

Wants To Circularize Friends

"We like the article [Bale-Size Boxes Cut Waste Handling Costs, p.

STOWE-WOODWARD Maintenance Tips

for better finishing at lower cost



Q. WHEN SHOULD A RUBBER ROLL BE REGROUND?

A. *(Check the answer you think correct . . .)*	
1. EVERY 90 DAYS.	
2. WHENEVER CHECKS, PUNCTURES, LOSS OF CROWN, OR UNEVEN WEAR REQUIRE.	
3. WHEN TAKEN OFF MACHINE AND PUT INTO STORAGE	

You'll find the correct answer in these Maintenance Tips

If you checked answer #2, and you probably did, score yourself 100% because any one of these conditions requires regrinding. Complete breakdown of the rubber cover on a roll can almost always be traced to failure to heed these warning signals.

Frequent grinding is your best assurance of satisfactory performance and long roll life. The longer a roll is kept in operation with a checked, or otherwise damaged cover, the greater the cut necessary to restore its surface. Wherever possible, dry grinding is recommended followed by sanding with fine grit paper. Do not grind rolls when removing from the machine to place in storage. Although it is all right to rough grind at this time, finish grinding should be done just before installing, to insure a fresh surface. When grinding, be sure to remove all traces of cracks or checking in the covers. If these are not ground out, the covers will check prematurely when placed in service.

Your Stowe-Woodward engineer will be pleased to help you with any problem regarding the care and maintenance of rubber covered rolls.

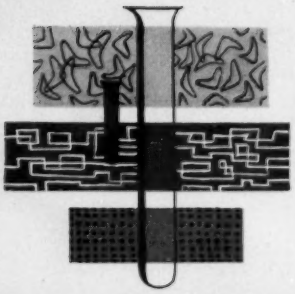
"RUBBER ROLLS with a REPUTATION"

S-W INC.

STOWE-WOODWARD, Inc.

Craftsmen in rubber rolls

NEENAH, WISCONSIN — NEWTON 64, MASSACHUSETTS — GRIFFIN, GEORGIA



Improve textile sizing, printing, finishing

use OK TEXTILE STARCHES

OK Textile Starches assure you of quality cloth that stimulates sales and profits. This is true because of Hubinger's continuous laboratory research giving you the benefit of improved, up-to-the-minute additives, plus carefully controlled formulae uniformity. Always dependable, convenient to store and time-saving in use, OK Textile Starches provide an effective, economical means to improved sizing, printing and finishing. Try OK soon in your mill operations!

Need a tailor-made textile starch?

Any Hubinger representative will be pleased to place expert technical men and extensive laboratory facilities at your disposal. Remember, some of the industry's leading textile experts are on Hubinger's staff.

Contact the representative nearest you:

Ira L. Griffin & Sons
Southern Agents
P. O. Box 1576
Charlotte, N. C.
(Phone: Franklin 6-5583)

Joe R. Myers
1817 Dell Drive
Columbus, Georgia
(Phone: 7-2244)

Carl F. Merritt
Box 346-A
Piedmont, S. C.
(Phone: Greenville 2-0424)

New York Office
500 Fifth Avenue
New York 36, New York
(Phone: Longacre 5-4343)

Boston Office
192 State Street
Boston, Massachusetts
(Phone: Capitol 7-3268)

Also offices in Chicago and Los Angeles

OK BRAND

THE HUBINGER COMPANY
KEOKUK, IOWA
ESTABLISHED IN 1881

Shorts and Remnants

104 Feb. '55]. . . . . and shall appreciate your sending us ten tear sheets of this article. Like everyone else, we want to circularize a few of our friends."

L. M. WOODWARD
General Manager
Eastman Cotton Mills
Eastman, Ga.

Wants Narrow Fabric Looms

"We are subscriber of your magazine. . . . We would like the names and addresses of manufacturers of needle narrow fabric looms. . . . "

EDWARD JANOWSKI
Mgr.
Leedon Webbing Co.
Central Falls, R. I.

► Narrow fabric looms are made by Crompton & Knowles Loom Works, Worcester, Mass. (needle and shuttle types); Fletcher Works, Philadelphia, Pa. (shuttle type).

Wants Information on "Micronaire"

"I have been looking through your past issues in an endeavor to find an article that was written up pertaining to the . . . . . Mfg. Co. and their use of the Micronaire. . . . "

FRED RUNGE
V. P.
Cia Textilera Ariguanabo, S. A.
Bauta, Cuba

► Fred, we have run plenty on Micronaire. Maybe you want Jan. '52, Pages 131-133.

Wants Book on Textile Designing

"I would like to know if there is a book of instructions on Designing from three to six harness cam looms. . ."

ANDREW BUCHANAN
Alabama City, Ala.

► Since we looked the subject up, anybody else interested?

► Odds & Ends: One reader wants to know where to buy persimmon and dogwood shuttle blocks. **Geoffrey E. MacPherson,** Nottingham, Eng., says that "when bobbins have been in use in a mill over here for a short period of time they become excellent for starting the fire in the morning . . . whereas firewood obtained elsewhere would not be so ripe for this." Tough on the mills, but think of the bobbin manufacturers. **Cary C. Boshamer,** Clover, S. C., writes TI for data on an item carried by one of our contemporaries. Being ethical (reasonably so) we passed this one on.

NEW...Sales-winning TEXTILE PACKAGING

with Perfect Electric-Eye Registration . . . directly from Your Printed Package Design!

EASY AUTOMATIC OPERATION

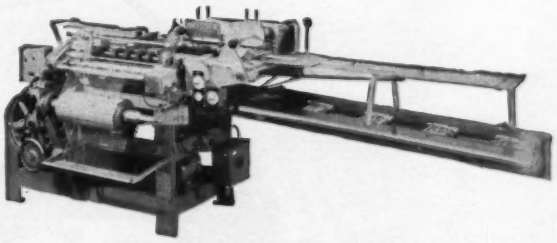
Regardless of size or shape, you get a neat, tight, perfect-register wrap on every package with a Hayssen automatic wrapping machine. Also, production men report savings up to 80% over previous wrapping costs.

FASTER, SIMPLE TO CHANGE SIZE

No complicated adjustments from size-to-size on a Hayssen. No gears or sprockets to remove or change... no need for expensive mechanics to change size, either. So simple the operator does it on the job.

COSTS LESS, DURABLY BUILT

Hayssen's simple, rugged design, using fewer moving parts, keeps these machines working and saving through years of dependable, trouble-free service. Both the cost of the machine and the maintenance are so low you won't believe it.



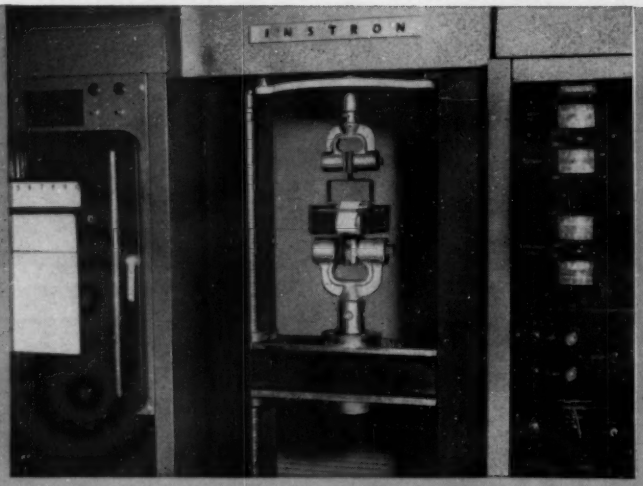
Let our Packaging Engineers help you with your packaging problems... WRITE US TODAY for further details.

Hayssen MFG. COMPANY

Since 1910, Manufacturers exclusively of automatic wrapping and packaging machines.

Dept. TI-5, SHEBOYGAN, WISCONSIN

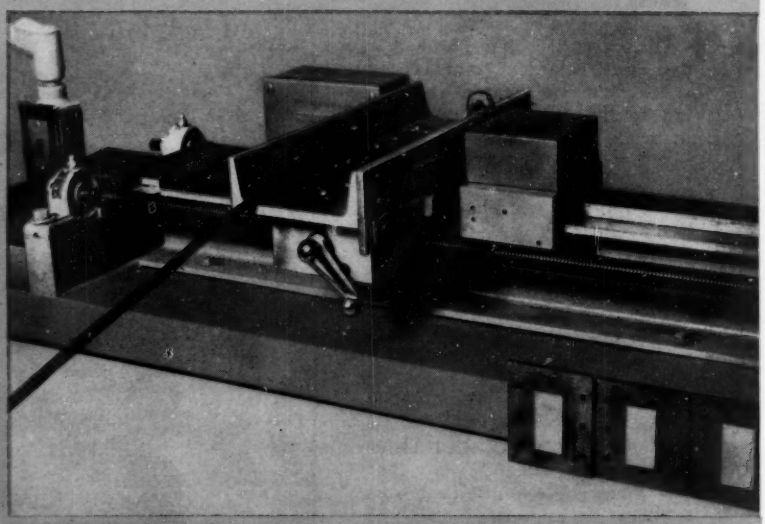
Atlanta • Boston • Chicago • Dallas • Denver • Detroit • Los Angeles • Minneapolis
New York • Philadelphia • St. Louis • San Francisco • Seattle • Montreal • Toronto

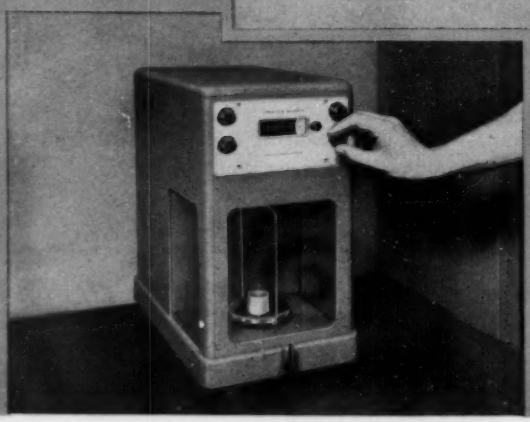


Optimum flexibility is built into the rubber compounds used in Armstrong Accotex Aprons. This sensitive test machine measures the force required to flex an apron and records the data on the unit at left. From this information, the relative flexibility of the sample can be calculated.

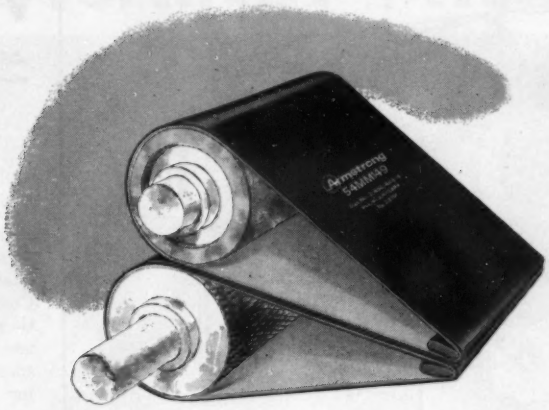
These quality controls

Controlled surface friction is necessary for good drafting. On this machine, sample sections of apron compounds are mounted under weighted block at center of picture. The block is then moved at fixed speed across a polished steel bar. The amount of "push" required to move the block is registered by strain gauges and automatically recorded on a separate test unit.





High abrasion resistance is essential in aprons today because higher weightings increase the chance of wear on inside apron surfaces. One way to measure abrasion resistance is to weigh aprons before and after accelerated wear tests. Here, an Accotex Apron is weighed on a balance that is sensitive to weights as low as 1/10,000th of a gram.



give you Accotex Aprons that

spin clean, uniform yarn on long-draft equipment

Reports from mills with long-draft, double-apron frames show that Armstrong NO-7075 Accotex® Aprons give superior spinning action—month after month.

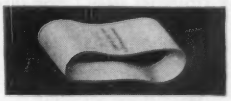
The big reason for this, of course, is the way in which NO-7075 Aprons are made. Two different synthetic rubber compounds are used in this apron. Each is designed to do a special job—and both compounds are tested and retested to conform to the high Armstrong standards of production. (Some of the steps that guard NO-7075 quality are shown at the left.)

As a result, this apron's *black outer surface* is designed to drive the top apron without slipping and maintain good drafting tension on the roving. The *white inner surface* is compounded to grip the drive roll firmly, yet it never jams at the pin.

If you're planning a switch to long-draft equipment—or if you're spinning on it now—NO-7075 Accotex Aprons can make an important difference in yarn quality. Call your Armstrong representative for a test side of these aprons or write us direct.

For the free booklet, "Armstrong Textile Roll Coverings and Mill Supplies," write Armstrong Cork Company, Industrial Division, 6405 Ivy St., Lancaster, Pa.

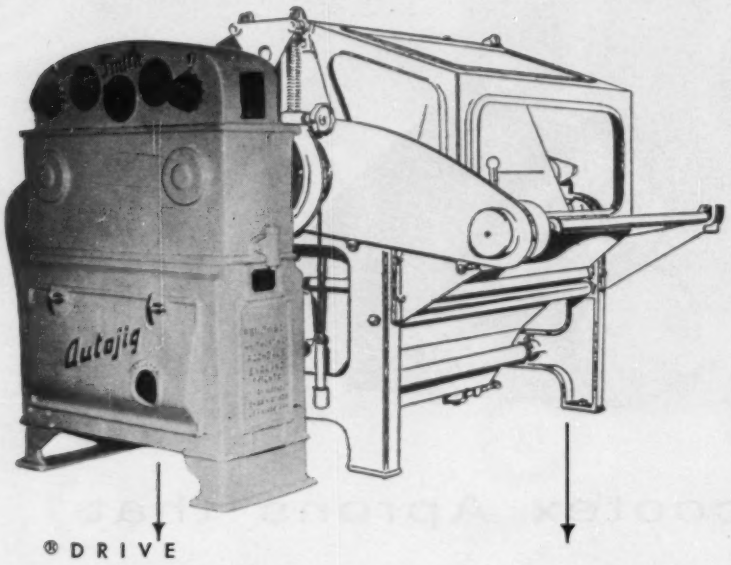
FOR SINGLE-APRON SPINNING, use the super-flexible Armstrong NO-750 Apron. This long-wearing apron is specially made to give the smooth drafting action needed for strong, uniform yarn. NO-750's smooth surface lasts for years without cracking or scuffing.



Armstrong ACCOTEX APRONS

. . . used wherever performance counts

installations prove



Autojig + your jig =low cost, automatic, tensionless dyeing

Adding a Smith Patented Autojig **Drive** to your present dyejig will at low cost provide:

1. Constant, tensionless cloth control. 2. Adjustable torque control. 3. Automatic stop after predetermined number of ends. 4. Automatic or non-automatic reversing. 5. Automatic free-wheeling brakes.

Completely stainless steel Cook jigs are available with this drive.

Cook P&N **MACHINE CO., INC.**

365 DORCHESTER AVE. BOSTON 27, MASS.

FINISHING, DYEING, BLEACHING, MERCERIZING, OPENING & WASHING RANGES

Personal NOTES

ABOUT MEN YOU KNOW

J. Robert Bonnar, dyestuffs sales manager with General Dyestuff Co., New York, N. Y., has been appointed chairman of the President's Advisory Committee of the American Association of Textile Chemists and Colorists. This new committee will be responsible for reviewing certain major AATCC proposals and making suggestions to the Council, governing body of the Association.

Francis Brennan, who has been with Joan Plush Mills, Woonsocket, R. I., for the past 7 years in various capacities, is now overseer of finishing.

New president and general manager of Crescent Hosiery Mills, Niota, Tenn., is **William H. Burn,** who succeeds his father, the late James L. Burn II, in this capacity.

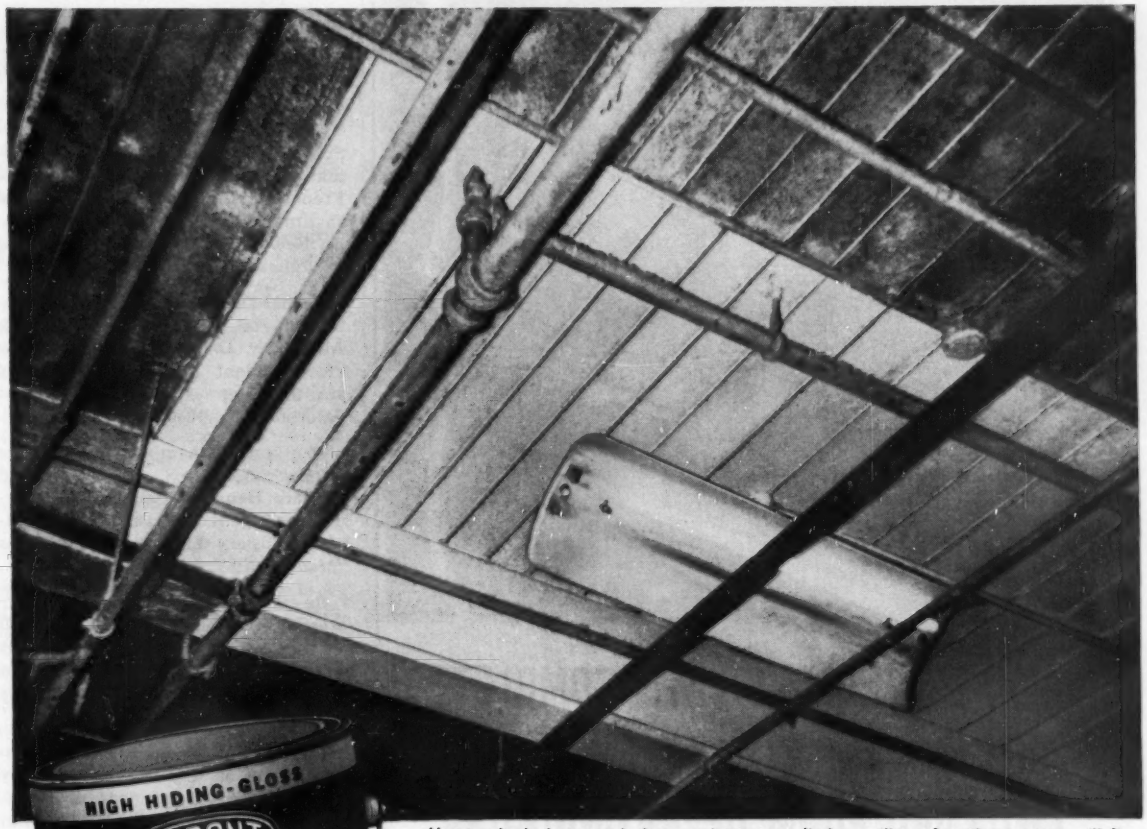
Seminole Mills, Statesville, N. C., now have **Herman Burrell** as personnel manager. Mr. Burrell was formerly assistant personnel manager of the Union (S. C.)-Buffalo Mills.

J. A. Byars is new general superintendent of the Eagle and Phenix Division of Fairforest Co., Columbus, Ga. Prior to accepting this position he was with Riegel Textile Corp. as assistant general manager of their Ware Shoals (S. C.) Division.

In the March, 1955, issue of TEXTILE INDUSTRIES [p. 16], it was erroneously reported that **S. M. Cauble** had resigned from Acme Spinning Co., Belmont, N. C., to accept a position with Valdese (N. C.) Manufacturing Co. Mr. Cauble is still with Acme Spinning. It was Mr. Cauble's son, **S. M. Cauble, Jr.,** who accepted a position as assistant to the general manager of Valdese. Mr. Cauble, Jr. was with the R. L. Stowe textile mills of Belmont.

Riegel Textile Corp. has promoted **Preston H. David,** formerly managerial assistant of its Ware Shoals Division, to assistant general manager of the Trion Division. * * * New executive vice-president of Riegel is **G. T. Gardner.** Mr. Gardner is also a director of the company and a member of the executive committee. Prior

GUARD AGAINST MILDEW!



Unretouched photograph shows paint test applied to ceiling of southern cotton mill five years ago. The white area was painted with DULUX Mildew-Resistant Maintenance White, the rest with orthodox material.

. . . resists yellowing
. . . keeps mill interiors white

Du Pont DULUX Mildew-Resistant Maintenance White Enamel gives you maximum return on your maintenance-painting investment. Specially formulated for textile-plant interiors where mildew is a problem, these three superlative characteristics have been built into this product:

1. MILDEW RESISTANCE . . . Control of destructive, light-robbing mold formation through the incorporation of an inhibitor in the DULUX formula. Extremely toxic to mildew, yet harmless to painters and workers. (Where mildew is especially severe, Du Pont Mildew-Resistant Undercoat is recommended as a first coat.)

2. HIGH HIDING . . . one-coat application, more coverage per gallon. The intense hiding of DULUX Maintenance White has been famous in the textile industry for years.

3. RESISTANCE TO YELLOWING . . . an outstanding DULUX characteristic, proved in hundreds of textile plants. Long after application, a DULUX Maintenance White surface is still brilliant white, still smooth as tile, still easy to clean.

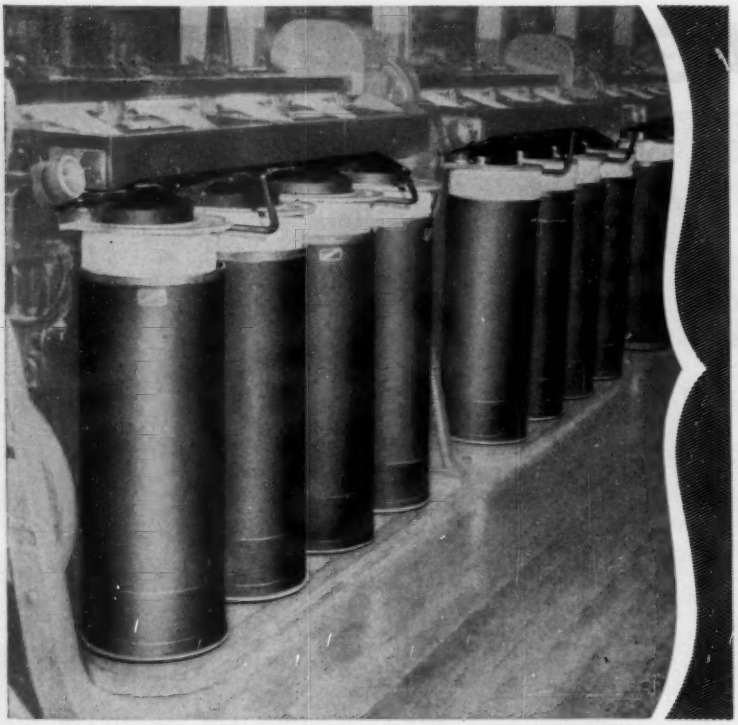
Next time your plant needs maintenance painting, specify DULUX. For lasting protection, it fills the bill. For the sake of economy, it cuts the bill. Write E. I. du Pont de Nemours & Co. (Inc.), Finishes Div., Dept. T-55 Wilmington 98, Delaware.

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

PAINTS

Chemically engineered to do the job better



HOW SOUTHERN STATES COMPLETE COILERS AND CONVERSION UNITS CUT CARD ROOM OPERATING COST

Mill case histories prove over and over that Southern States coiler conversions pay for themselves in less than a year!

Adding up to lower operating costs and savings you can see are—larger cans with increased capacity . . . renewed life of old coilers, longer life of new coilers . . . lower maintenance costs . . . smaller parts inventories . . . simplified, more efficient handling . . . plus improved quality.

Recognizing that each mill is faced with different problems, Southern States has produced the most complete line of coiler and coiler conversion units available to the industry. Thus, regardless of sliver handling methods, or condition of existing equipment, Southern States makes it possible for your mill to enjoy all the advantages of larger cans at a price you can afford.

Complete details are in our Bulletin 201, which we'll send on your request. Better still, let our representative show how Southern States conversions can cut your card room costs.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

to accepting this position he was a vice-president of Burlington Industries.

The honorary degree of Doctor of Science will be bestowed upon **Herman A. Dickert,** director of the A. French Textile School of the Georgia Institute of Technology, Atlanta, Ga., by Newberry (S. C.) College during its June commencement exercises.

Frank Dietrick, formerly superintendent of dyeing at Powdrell & Alexander, Danielson, Conn., is now vice-president in charge of dyeing and finishing at Verney Corp.'s West Peterborough, N. H., division.

The Junior Chamber of Commerce of Rockingham, N. C., has named **William Henry Entwistle, Jr.,** treasurer and general manager of Sandhurst Hosiery Mill, Rockingham, as "Man of the Year."

Resignation of **P. E. Findlay** as vice-president in charge of sales for Bibb Manufacturing Co., Macon, Ga., was announced recently. Mr. Findlay had served the firm in various capacities for more than 50 years.

Charles A. Gibson, director of manufacturing of Ely & Walker Dry Goods Co., and president of F. W. Poe Mfg. Co. in Greenville, S. C., has been elected a vice-president of Ely & Walker. **Robert D. Sellers,** president of Southern Bleachery & Print Works, Inc., Taylors, S. C., was also named an Ely & Walker vice-president and member of the board of directors.

Promotions at Unity Spinning Plant of Callaway Mills Co., LaGrange, Ga., are: **Luther Gladney** to second hand in the carding department; **Jack Market** to overseer twisting, **Clyde Williamson,** overseer carding; and **John Tant,** second hand in the synthetic unit. * * * New research chemist in the chemistry laboratory of the Research and Development Division is **Frank Taylor,** formerly with Hilton-Davis Chemical Co.

Abe Gottlieb, president of Abe Gottlieb, Inc., has been elected president of Liberty Fabrics of New York, Inc. New chairman of the board is **Jules G. Haft,** formerly president.

P. H. Hanes Knitting Co., Winston-Salem, N. C., recently elected **John D. Green** vice-president and director, and **Edwin E. Maddrey** was made as-

sistant treasurer in addition to assistant secretary. Mr. Green is in charge of yarn manufacturing.

The National Association of Cotton Manufacturers has announced the retirement from its staff of **Milan L. Hatch** and **John J. Riley,** after more than thirty-six years service. Mr. Hatch was manager of the New England Cotton Freight Bureau and Mr. Riley assistant to the president of the Association.

At Nebel Knitting Co., Charlotte, N. C., **C. E. Hicks,** vice-president, was promoted to general manager, retaining the title of vice-president; **W. R. Caudle,** sales manager, was made vice-president in charge of sales.

John F. Hilton, who has been with M. J. Whittall Associates, Worcester, Mass., since 1924, has been promoted from assistant general manager to general manager. **William C. Green** succeeds Mr. Hilton as assistant general manager.

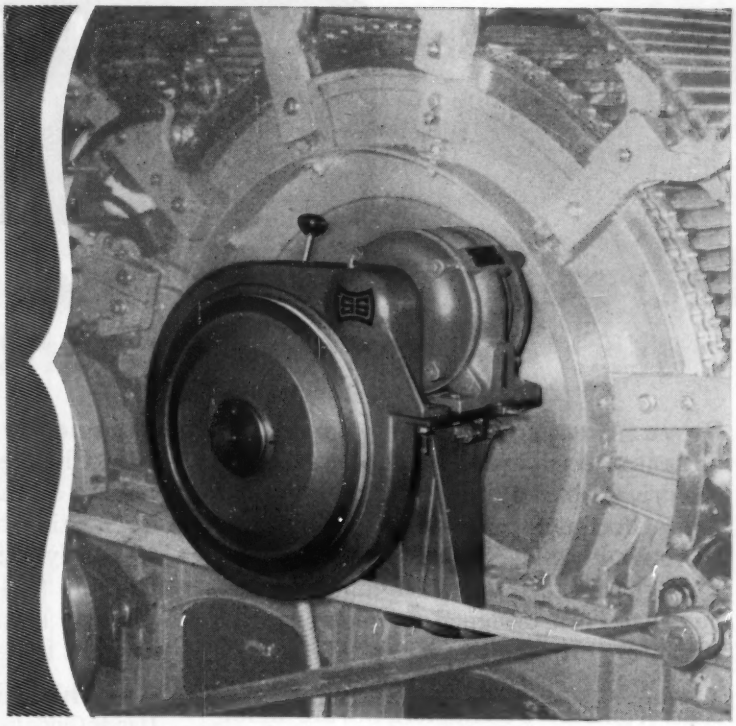
A new vice-president of Dan River Mills, Inc., Danville, Va., is **Bentz B. Howard,** general merchandise manager of men's and boys' wear fabrics.

Recently named board chairman of the Drexel Knitting Mills Co., Morganton, N. C., was **Robert O. Huffman,** formerly president. **Frank L. Bowers,** formerly vice-president and treasurer, succeeds Mr. Huffman as president. Plant superintendent and director **Robert D. Walker** was named executive vice-president.

D. W. Johnston, former superintendent of The Montreal Cottons Ltd., grey mill at Valleyfield, Quebec, Canada, has been appointed to the new post of plant manager of the Drummondville division of Dominion Textile Co. Ltd. **H. C. Clark,** former superintendent of the Riverside division of the Dan River Mills, Inc., Danville, Va., succeeds Mr. Johnston. **R. W. Kolb,** former head of fiber research in the Montreal office, has been appointed assistant plant manager of the Drummondville Division.

Assistant treasurer of P. H. Hanes Knitting Co., Winston-Salem, N. C., **J. D. Long,** has retired after nearly 38 years with the company. Mr. Long was presented with an easy chair, a leather-top table, an indirect lamp, and a gold watch at a retirement ceremony in his honor.

Recently appointed president of Alden Mills, New Orleans, La., was **Ernest L. McLellan,** succeeding his father **Charles McLellan,** who has re-



SOUTHERN STATES MAKES POSSIBLE INDIVIDUAL CARD DRIVE BENEFITS WITHOUT CHANGES IN PROCEDURE

Your mill can enjoy the advantages of individual card drives *without changing carding or stripping procedures.* An EXCLUSIVE Southern States feature makes this possible. A standard-diameter grooved pulley, an integral part of the main drive, permits stripping in the usual manner. *No separate stripping device is needed.* The operation is simpler, quicker, and safer.

Important to cost-conscious mill men, the Southern States Individual Card Drive *meets both budget and operational requirements.* It is priced low enough to justify the elimination of card room lineshafting and belting with their inherent hazards and headaches.

It is a packaged unit, easily and quickly installed. Mounts direct to card frame. No complicated reduction unit or overhung load on cylinder shaft. Occupies about the same space as flat-belt drive. Leaves flats clear and eliminates danger of springing arches or damage to flats due to vibration.

Write for our Bulletin No. 200, or get the facts from your nearest Southern States representative.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

ALLIS-CHALMERS

TEXTILE DRIVES

All

Increase Quality and Production ... Cut Maintenance

Power Packages . . . Get complete coordinated equipment from power line to the driven shaft of your textile machinery. Allis-Chalmers textile drives result from thorough knowledge of power requirements throughout the plant. Each unit described here has been designed to get maximum efficiency, output and continuity of service from a specific type of machine. Motor, control and drive characteristics are all tailored to the job, and long operating experience has proved their effectiveness.

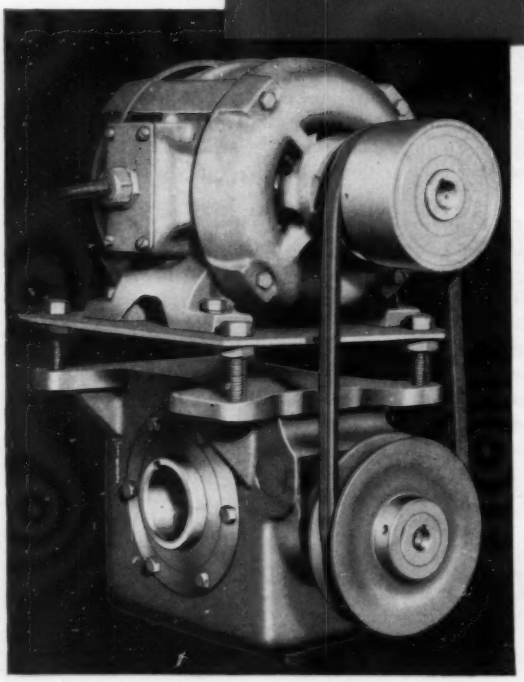
Backed by Certified Service

Allis-Chalmers distributors and district offices in all major textile areas offer skilled application help. Well-equipped and conveniently located Certified Service Shops provide factory-approved methods and parts to keep your drive equipment operating at top efficiency.

Get This Literature

Handy Guide to Motor Selection (Bulletin 51B6052) —*Quick-Clean* Textile Motors (51B6055B) —Across-the-Line Starters (14B7132) —Reduced Voltage Starters (14B7215) — and *Vari-Pitch* Drive Engineering Data (20B7499). Call your nearby A-C District Office or write Allis-Chalmers, Milwaukee 1, Wis.

CARDING



Individual Card Drives Make Card Rooms Cleaner, Safer

Individual card drives do away with unsightly and dangerous overhead line shafting and long belts. No hard-to-clean ceiling structure to drop dirt and grease in machines — better lighting and plenty of ceiling room to install air conditioning.

Features

Quick-Clean motor drives gear reducer through *Texrope* drive and mercury clutch. Sheave adjustable for cylinder speeds from 157 to 189 rpm.

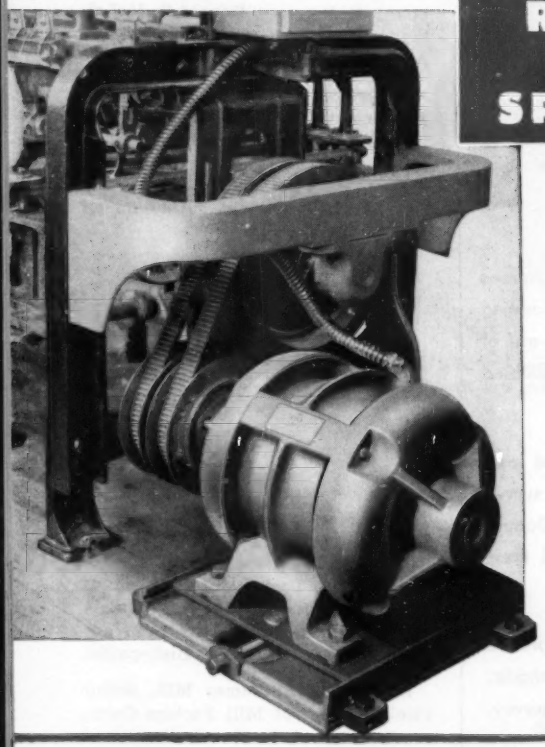
- Complete unit mounts on present card cylinder shaft and fits present aisle space.
- No vibration or strain on card arch, and weight of drive does not overload bearing.

Quick-Clean, Vari-Pitch and Texrope are Allis-Chalmers trademarks.

AC

ALLIS-

through the mill



ROVING and SPINNING

Lint and Dirt Can't Stop *Quick-Clean* Textile Motors

Wide open air passages and powerful fans sweep dirt and lint right through and OUT of these motors. They end motor problems created by lint-laden atmospheres.

Features

Bearings: sealed, prelubricated double-width single-row ball bearings operate long periods without attention of any kind. May be cleaned and repacked if required.

- Slow-acceleration motor for roving frames. Takes almost three times as long as standard motor to reach speed. No special control required.
- *Texrope* V-belt drives and correct control supplied to meet complete machine drive needs.

WEAVING

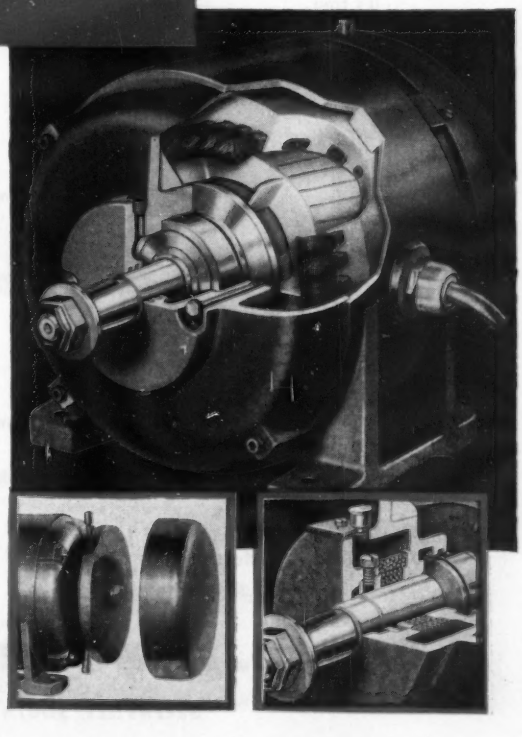
New Motor Design Licks Problems of Modern High Speed Operation

Oversize rotor, stator and bearings built to handle rapidly oscillating load of loom speeds as high as 200 picks per minute and more. Rotor diameter is as great as possible for added flywheel effect, and slip has been regulated to produce minimum speed variation. Nearly two years of field testing prove the operating economies possible.

Features

Totally enclosed, non-ventilated design excludes all lint from interior.

- Stator double insulated, extra large, heavy construction.
- Die cast rotor of large diameter and proper slip maintains stable speed under pulsating load.
- Oversize ball bearings of double-shielded type protect against over-greasing that causes bearing trouble.
- Optional: (1) flywheel for added inertia and (2) waste-packed bronze sleeve bearing.



A-4538

CHALMERS

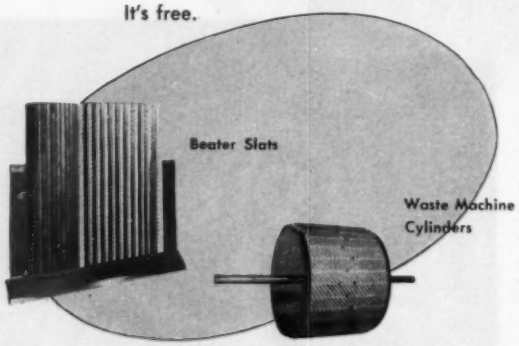
He Just *Doubled* His Opening Efficiency*

*Case History in a Leading Mill

This superintendent's opening machinery was in good order. Aprons were of good quality and up to original specifications, yet cleaning efficiency was low. Respacing of the apron slats and the use of new pin sizes, as recommended by Dodenhoff engineers, doubled his opening efficiency overnight.

Changing conditions call for new apron specifications in at least 30% of our mills. Dodenhoff engineers are well qualified to survey your needs and make the right recommendations, because Dodenhoff makes the machinery in which aprons are used and these engineers are familiar with apron requirements.

Changeovers recommended by Dodenhoff have greatly improved opening production in many mills in the United States and Canada. Make sure your aprons are right by asking for a Dodenhoff survey. It's free.



Your Convenient Source for
New and Reworked TEXTILE APRONS
highest quality . . . all belting cut from center of the hide in our own shops.

BEATER SLATS . . . Spiked and Plain, highest quality maple and birch.

Waste Machine Cylinders
Kirschner Beaters

W. D. DODENHOFF CO.
INCORPORATED
GREENVILLE, SOUTH CAROLINA

Personal NOTES ABOUT MEN YOU KNOW

tired but retains his position on the board of directors. **Donald S. McLellan** is executive vice-president and **Alden McLellan** treasurer.

Percy R. Meeker, formerly with Attleboro (Mass.) Dyeing and Finishing Co., has been appointed manager of finishing sales and a vice-president of Bishopville (S. C.) Finishing Co., a wholly owned subsidiary of

Mr. Meeker

Mr. Knoepfel

Reeves Brothers, Inc. **Walter Knoepfel,** who has been plant manager of Burlington Industries' Alta Vista (Va.) Finishing Plant, has been appointed plant manager at Bishopville.

Election of **A. James Mill,** senior vice-president of Mill Factors Corp., as chairman of the Textile Section of the New York Board of Trade was announced recently.

New president of the Gastonia (N. C.) Chamber of Commerce is **Albert G. Myers, Jr.,** secretary-treasurer of Textiles Inc., Gastonia.

Succeeding **Jewett T. Flagg,** president and director of Flagg-Utica Knitting Co., as president of Amwool Financial Corp. is **William D. Mewhort,** vice-president and treasurer of Textron American. Mr. Mewhort and **Royal Little,** chairman of Amerotron Corp. and Textron American, Inc., were elected to the board of Amwool.

E. W. Seigler, formerly vice-president in charge of manufacturing for The Abney Mills in Greenwood, S. C., is now vice-president of Erwin Mills, Inc., relieving **Carl R. Harris** of his manufacturing duties. Mr. Harris is now vice-president of the company's personnel and industrial relations activities, assisted by **Chauncey W. Lever** and **Sidney F. Marsh. Marchant C. Cottingham,** assistant manager of the Erwin plants at Erwin, N. C., has been promoted to general

The Magic is "LANOLIZED"

A wonderful new finish that makes nylon stockings superbly comfortable, exquisitely beautiful . . . nylons that *feel* better, *fit* better, *look* better, *wear* better! Examine LANOLIZED nylons critically. See how silky-smooth, soft, perfect-fitting they are . . . how cobwebby-sheer, smoky-dull . . . how completely alluring!

Lanolized®

THE NEW MEMBER OF THE DuraBeau FAMILY — THE PROCESS THAT TREATS NYLON STOCKINGS WITH LANOLIN

SCHOLLER BROS., INC.

Authorized Manufacturers and Distributors of LANOLIZED* . . . The Miracle Finish. Collins & Westmoreland Sts., Philadelphia 34, Pa. IN CANADA: Scholler Bros., Ltd., St. Catharines, Ontario

PIONEERS IN TEXTILE FINISHES SINCE 1907

REPUTATION

Is Mighty
Important
To The Twenty
Game Winners

One of a baseball pitcher's best stocks in trade is a fearsome reputation among batsmen on the other teams in the league. It's important that he maintain it!

It's also important to choose the electrical contractor with the best reputation to handle electrical projects in your mill. J. M. Clayton Co. has the reputation and the know-how . . . you'll hear the name mentioned wherever quality electrical contracting is being discussed.

WE'VE SERVED THE TEXTILE FIELD FOR FORTY-NINE YEARS

J. M. CLAYTON CO.

CONTRACTING ELECTRICAL ENGINEERS

ATLANTA, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

manager of the corporation and in that position will be working with Mr. Seigler. Filling the vacancy created by the elevation of Mr. Cottingham is **W. H. Miley** who was formerly general superintendent of the No. 2 and No. 5 plants at Erwin. **J. K. Bruton,** superintendent of the No. 5 mill succeeds Mr. Miley.

New chief chemist and assistant foreman of the bleach and dye department of Roanoke (Va.) Mills, Inc., is **William W. Murphy,** who was formerly with P. H. Hanes Knitting Co., Winston-Salem, N. C.

Marshall M. Payne has resigned as vice-president and general superintendent of Cannon Mills Co., Kannapolis, N. C., after forty years association with the company.

Belding, Corticelli, Ltd., Montreal, Canada, has elected **D. F. Pollock,** formerly secretary, a director and secretary-treasurer. **L. B. Ramsey,** director and general manager, was named vice-president in charge of production. New vice-president in charge of sales is **Homer H. Bland,** formerly assistant general manager.

Gregory Shlomm is now president of Woonsocket (R. I.) Spinning Co. Other officers are: **Theodore Birnbaum,** vice-president; **Walter Bareiss,** treasurer; **Harry Halpern,** secretary. Yarn superintendent and wool buyer is **Romeo Gagnon,** formerly with Bonin Spinning Co. **Karl Steppenbeck** is superintendent of operations.

Joseph M. Stertz has joined American Dyeing Co., New York, N. Y., in a sales capacity.

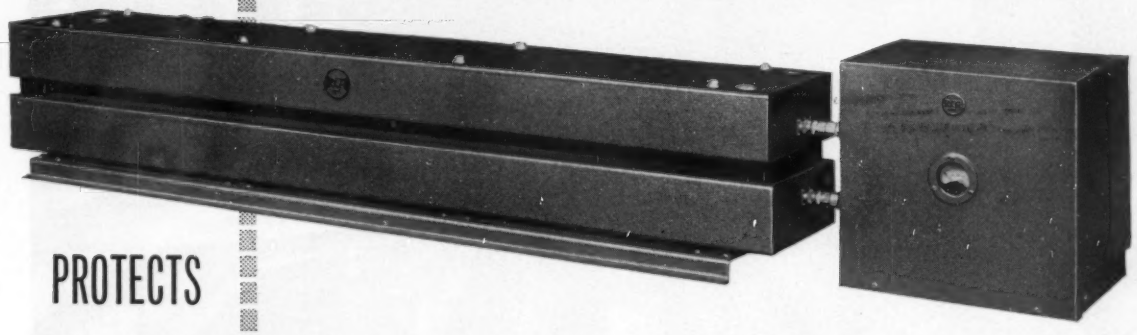
Secretary and treasurer of Belvedere Hosiery Co., Charlotte, N. C., **Robert H. Theiling,** has been given additional duties as general manager.

Gainon Hosiery Co., Madison, N. C., has named **A. J. (Jack) Wall** of Rock Hill, S. C., superintendent, replacing **Hubert Barrier,** who has resigned.

John Wallace of Supersilk Hosiery Mills, London, Ont., is new president of the Canadian Association of Textile Colourists & Chemists, Ontario section. Honorary president is **C. B. Musgrave,** Barrymore Cloth Co., Toronto. Vice-presidents are **W. McCusker,** Stauffer-Dobbie, Ltd., Galt, and **A. J. Tigert,** Resintex, Ltd., St.

New RCA Metal Detector

Designed Especially for the Textile Field



PROTECTS

costly calender rolls, cutting knives, dies.

REDUCES

loss from damaged products and downtime.

Now . . . for the first time . . . an RCA Electronic Metal Detector to solve the special tramp metal problems of the textile industry! It automatically spots metal particles of all types—both magnetic and non-magnetic—even though they may be woven into the fabric.

FOR HIGH SPEED OPERATIONS—The RCA Metal Detector may be employed with strip material traveling at speeds from 10 to 1000 feet per minute, with full inspection sensitivity (will detect a steel sphere 0.039 in.—1 mm.—dia.). Finding particles the eye could never see, the detector can be arranged to sound an alarm, stop the traveling material, or cause dye or chalk to mark the spot.

ANYONE CAN OPERATE—Your regular plant personnel can operate the equipment with ease and safety because of simple Control Unit design, and complete absence of moving parts or exposed electrical connections.

PAYS FOR ITSELF! In many varied operations, RCA Metal Detectors have paid for themselves—two or three times in a year—in longer life of calenders and other key machinery, decreased downtime and savings on product losses. The Detector can be put to work quickly in your plant by maintenance personnel under the supervision of an RCA Service Company specialist. Their nationwide facilities keep maintenance at a minimum.

RCA . . . the World's Best Name for QUALITY.

RADIO CORPORATION of AMERICA

CAMDEN, N. J.

In Canada: RCA VICTOR Company Limited, Montreal

Why not send for more particulars today? Use Coupon.

Radio Corporation of America
Dept. P-271, Building 15-1, Camden, N. J.

Please send me information on the RCA Electronic Metal Detector for textile applications.

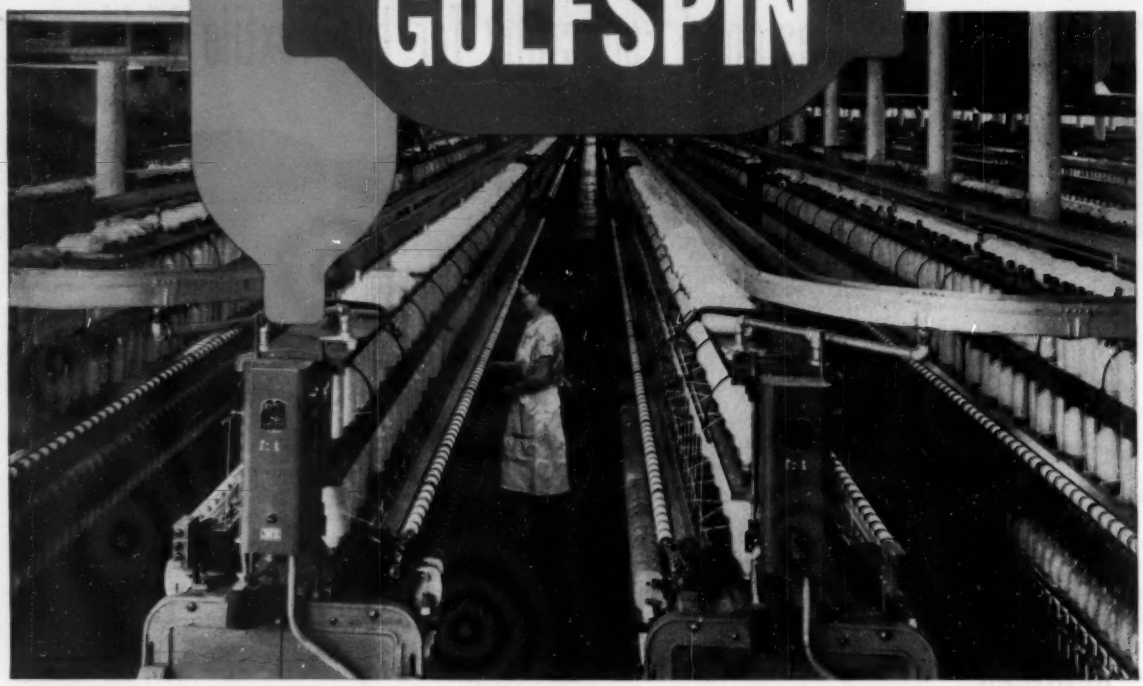
Name_____ Title_____

Company_____

Address_____

City_____ Zone_____ State_____

Keep spindles spinning true with GULFSPIN



Keep your spindles spinning true with a minimum of vibration and drag. Use Gulfspin, the spindle oil that resists sludge formation, that holds contaminants in suspension so they do not deposit on spindle parts, and that provides effective protection against rust.

You also reduce power costs with Gulfspin. Ordinary spindle oils often thicken after a few months of service, requiring increased power. Gulfspin shows no increase in viscosity after many months of service.

You'll find that these advantages all add up to smoother spindle operation, fewer ends down, and rock-bottom maintenance and power costs.

Contact a Gulf Sales Engineer at your nearest Gulf office today and give him a chance to prove the superiority of Gulfspin on your frames.

Gulf Oil Corporation • Gulf Refining Company

1822 Gulf Building, Pittsburgh 30, Pa.

GULF

THE FINEST PETROLEUM PRODUCTS FOR ALL YOUR NEEDS

Personal NOTES
ABOUT MEN YOU KNOW

Catharines, Ont. **C. C. Urquhart** of Burlington, Ont., is secretary-treasurer.

The National Federation of Textiles, Inc., has appointed **Edmund Wellington, Jr.,** assistant to the executive director.

New president of Egan Cotton Mills, Inc., College Park, Ga., is **John D. Willingham, Jr.,** succeeding his father who died last January.

Obituaries

J. R. (Dean) Brandon, 73, retired instructor of weaving, A. French Textile School, Georgia Institute of Technology, Atlanta, Ga.

William T. Coleman, 54, overseer at Gastonia (N. C.) Combed Yarn Corp.

Walter B. Dillard, 58, former manager of New Braunfels (Tex.) Textile Mills.

Grover C. Dunham, 68, general manager of the Utica (N. Y.) Cotton Mill of Dunlop Tire and Rubber Corp.

J. D. Hobson, 54, treasurer and general manager of Hemphill Co., Pawtucket, R. I.

G. O. Hunter, 68, director of Echota Cotton Mills, Calhoun, Ga., and executive vice-president and director of The Mary Leila Cotton Mills, Inc., Greensboro, Ga.

Harold Lent, 62, Commerce Department textile technologist, formerly with Quaker Lace and Hosiery Co.; Thomas W. Buck Hosiery Co.; and Ipswich Mills.

James McDowell, 65, vice-president in charge of southern operations for Hemphill Co., Pawtucket, R. I.

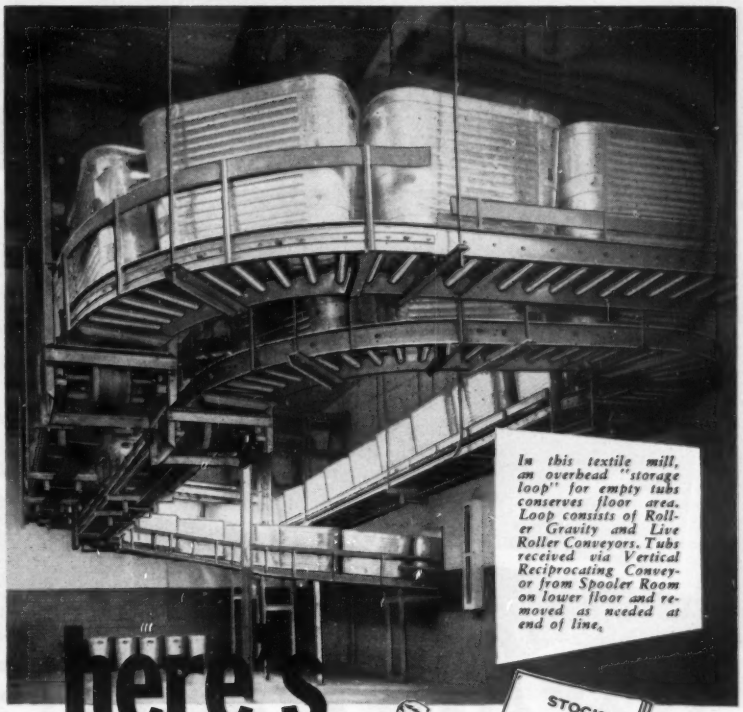
George N. Morio, 72, retired foreman with Hess, Goldsmith & Co.

C. J. Shannon, 59, vice-president of Robert & Co. Associates, Atlanta, Ga.

General Brehon B. Somervell, 62, president and board chairman of Koppers Co., Inc., and head of Army Service Forces during World War II.

Wilfred Ward, 82, former president of Providence (R. I.) Dyeing, Bleaching & Calendering Co.

Irving Weisberger, president of Fab-Tex, Inc., New York, N. Y.



In this textile mill, an overhead "storage loop" for empty tubs conserves floor area. Loop consists of Roller Gravity and Live Roller Conveyors. Tubs received via Vertical Reciprocating Conveyor from Spooler Room on lower floor and removed as needed at end of line.

here's one way to keep inventories to an efficient minimum!

By stepping up the tempo of production, by reducing in-process time, many businesses permit the billing of orders in the same month that payment is due on the raw material. No large sums of money are tied up in stocks.

Logan Conveyors provide that all-important means to swifter production, in countless plants the nation over. Whatever the product handled, Logan Conveyors can reduce inventory costs from receiving room straight through to shipping platform, and make other substantial savings, too.

Remember, you always get that "something extra" when you call in a Logan engineer.

LOGAN CO., 206 CABEL ST., LOUISVILLE, KY.

Logan Conveyors

For further information use Handy Return Card, Page 181

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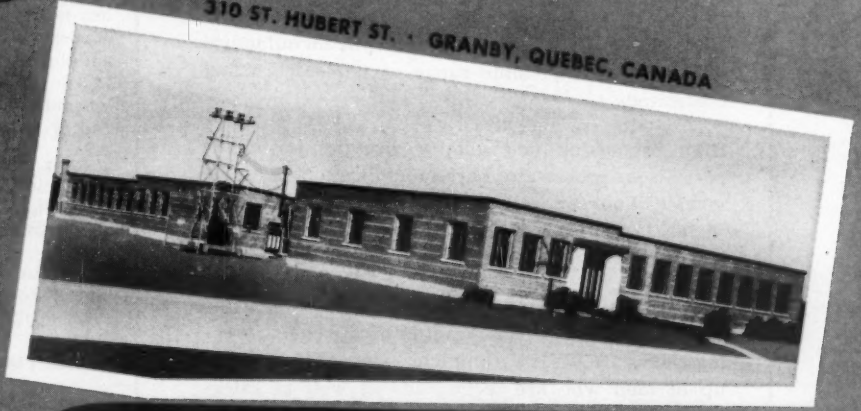
EQUIPMENT

310 ST. HUBERT ST. · GRANBY, QUEBEC, CANADA



Southern

QUALITY PRODUCTS

. . . Over half a century in developing and producing the equipment you need to maintain the standards required today.

SERVICE FACILITIES

. . . Over half a century in developing proper service by locating plants, equipment, and stocking them all for the convenience of the Textile Field.

North Leads The Way!

With over half a century of experience, FRANK G. NORTH, INC., leads the way in the manufacture of the greatest possible range of top-notch sizing compounds.

High production and quality weaving are made possible by proper size, correct application and alert service. You can call on NORTH with confidence for all three . . . and for assistance in *all* technical and practical matters relating to size.

One of the largest manufacturers of sizing compound, gums, waxes and kindred products for weaving yarns, NORTH'S complete sales staff is made up of men who are technicians as well as salesmen. They are thoroughly trained in all departments of the mill and are anxious to be of service. Call on them today or anytime.

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NORTH
INCORPORATED
MANUFACTURING CHEMISTS
Atlanta, Ga. • P. O. Box 123, Sta. A • Phone RAymond 2196
Marietta, Ga. • P. O. Box 92 • Phone Marietta 9-4323

What the TEXTILE MILLS are doing

General offices of **Abbot Worsted Co.,** formerly located in Graniteville, Mass., have been moved to Forge Village, Mass.

All of **Alamac Knitting Mills'** cotton knit goods will be sold with the "Permathal - Everglaze" finish as soon as production facilities now being installed are available, according to an announcement by Max Thal, president.

A ten-hour job-instruction training program at **Aragon (Ga.) Mills** is preparing supervisors and instructors to teach in the mill's future training programs.

A $2 million expansion program has been launched by **Artcraft Mills,** Darby, Pa. Two hundred 400-needle machines, with a production capacity of 4,000 dozen pairs of ladies' seamless hose per week, should be in operation by the end of 1955, and an additional 400, extending capacity to 12,000 dozen pairs weekly, are scheduled to be installed before the end of 1956.

Atlas Fibers Co., Inc., has transferred its manufacturing operations from Glendale, N. Y., to a new plant at 579 South Avenue, Beacon, N. Y.

Phil La Monica, John Bartalozzi, and Sisto Vinci are operating the former plant of Luxor Dye Works, Paterson, N. J., under the name **Avalon Finishing & Dyeing Co., Inc.**

Appalachian Mills Co., Knoxville, Tenn., purchased the sweat shirt knitting machinery from Oneita Knitting Mills, Utica, N. Y., which has moved its operations to Anderson, S. C.

Joseph Bancroft & Sons Co. has discontinued weaving and spinning operations at its plant in Reading, Pa. Machinery and equipment are being sold.

Davidson, N. C., is the site of a new zipper tape weaving plant recently opened and being operated by **Boivard, Inc.,** Stamford, Conn., and **Bridgeport** (Conn.) **Fabrics, Inc.**

Belrug Mills of S. C. has begun construction of an addition which

The Picker Lap

IS THE FOUNDATION ON WHICH COTTON YARN IS BUILT

The modern spinning mill, with few doublings, and long drafts, MUST HAVE GOOD CARD SLIVER!

The only way to get good card sliver is to make good picker laps — well felted and with little inch-by-inch variation.

A worn out picker, with a sluggish evener will not make good laps.

The best and quickest way to get pickers put in perfect condition is to have ALDRICH rebuild them. If you wish to overhaul the pickers at the mill, all needed parts can be had from ALDRICH overnight.

THE ALDRICH SYNCHRONIZED SINGLE PROCESS PICKER

Has always made more uniform laps inch-by-inch than any other picker with which it has been compared.

AldricH MachinE WorkS

Greenwood, South Carolina

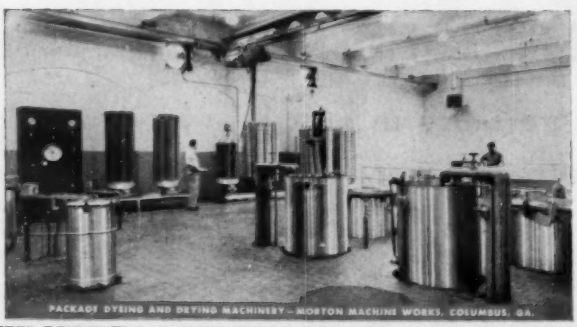
"THOSE DAYS ARE GONE FOREVER"

Dyer: Copper engraving by Luyken, 17th Century

In the old days dyers wanted even shades but had only the vaguest idea of how to go about getting them. Modern MORTON SYSTEM DYEHOUSE MACHINERY not only makes even shades possible but is automatic and consistant about achieving them.

The MORTON MACHINE WORKS package dyeing and drying machinery, pictured below, is a masterpiece of modern efficiency. All types of packages may be processed with a simple change of material carriers. The whole operation is automatically controlled.

A.S.M.E. code construction assures safety. Construction may be of any desired grade Stainless Steel.



PACKAGE DYEING AND DRYING MACHINERY—MORTON MACHINE WORKS, COLUMBUS, GA.

THE MORTON SYSTEM DYEING MACHINERY

MORTON

MACHINE WORKS, INC.

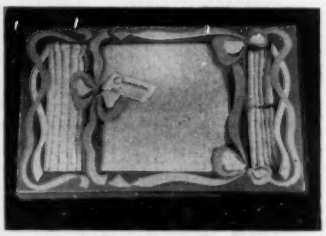
COLUMBUS, GEORGIA U. S. A.

What the TEXTILE MILLS are doing

will include a two-story section and a single-story section, and will double the facilities of the Greenville, S. C., plant. All operations of the firm will be concentrated in the new plant.

Plans have been announced for the gradual expansion of the Goodall-Southern plant in Hot Springs, N. C., by **Burlington Industries, Inc.** It is expected that the number of employees will be increased from the present 60 to 125. Drapery fabrics and thread for Palm Beach cloth are being manufactured.

Cannon Mills, Inc., won the Silver Award in Miscellaneous Division of the 19th annual Variety Store Merchandiser Packaging Competition for

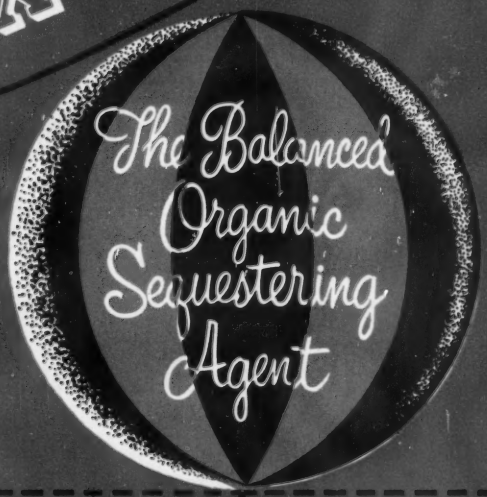


this boxed towel ensemble package which was designed by Miss Dorritt Osann of Cannon Mills and manufactured by Container Corp. of America.

Canadian Corduroys, Ltd., which was the original title of the **Verney Corduroys, Ltd.,** Montreal, is the name again being used. Oscar Simek has been appointed first vice-president in charge of production.

Callaway Mills Co., LaGrange, Ga., is offering twelve college scholarships this year. The plan, which has been in effect for two years, was revised this year to provide six general scholarships and six co-operative scholarships. Any student seeking a full course at any college or university approved by the Scholarship Plan Committee is eligible for the general scholarship, which gives $750 per year or $3,000 for four years, maximum. The co-operative plan provides $250 per quarter for five years to be awarded to qualified students wishing to study engineering at Georgia Institute of Technology, Atlanta, Ga., or a maximum value of $3,000. The company offers employment to these co-operative students at its plant in LaGrange,

CHEELOX B-14



Specifically designed to inactivate CALCIUM and MAGNESIUM PLUS all traces of IRON. In alkaline processing liquors, calcium and iron sequestering is accomplished SIMULTANEOUSLY.

CHEELOX B-14 is the new, all-purpose chelating agent which is soluble and stable at all temperatures in neutral, acid and alkaline solutions. For economical control of metal ions, regardless of the problem, Cheelox B-14 is the product to use.

To determine the effectiveness and economy of Cheelox B-14, we suggest you compare this new sequestering agent with the product you are now using.

Send today for a sample and technical data on the uses of Cheelox B-14.

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What the TEXTILE MILLS are doing

Manchester, and Milstead, during the quarters they are working. * * * Ten scholarships are also being offered to teachers in Meriwether, Rockdale, and Troup Counties in Georgia for summer school work. Each winner will receive up to $350 per summer based on actual school expenses.

Four high capacity knitting machines have been installed at **Carolina Jacquard Knitting Mills,** Charlotte, N. C., increasing productive capacity so that the mill can produce about 1,000 dozen baby sweaters per week.

Mrs. Dorothy Liebes, textile weaving and design artist, has been retained as a consultant by **Collins & Aikman Corp.,** New York, N. Y.

Recently completed at **Crystal Springs Bleachery,** Chickamauga, Ga., was a 10-week foremanship safety course. Sixty employees were awarded diplomas indicating successful completion of the course.

Delta Finishing Co. has under construction a 55,000 sq ft addition to its plant in Wallace, S. C. The dyeing and finishing departments will be enlarged and the warehouse facilities will be increased.

Merger of **Bradford Dyeing Association (Canada), Ltd.,** Cobourg, Ont., subsidiary of **Dominion Silk Dyeing & Finishing Co., Ltd.,** Drummondville, Que., with its parent organization has been announced.

Completion of a $500,000 modernization program is expected this summer by management of **Falls Manufacturing Co.,** Granite Falls, N. C. At Mill No. 1, 24 spinning frames are being modernized, and an overhead cleaner and new spooler are being installed. 18 new spinning frames and four new slubbers have been purchased for Mill No. 2 where some new drawing frames have already been installed and consideration is being given to modernization of others.

Since another J-box was recently added to the bleaching range in **Fieldcrest Mills'** Towel Mill bleachery, it is no longer necessary to run goods through twice. Thus efficiency is improved and production increased. * * * Also, a substantial reduction in quilling costs has been effected by installation of 16 new automatic quillers in the Synthetic Fabrics Mill.

A 22,000 sq ft addition is under construction at **Gaybourn Mills, Inc.,** Gainesville, Ga. Upon completion of this, machinery will be rearranged and size of the throwing department will be more than doubled.

Graniteville Co. is enlarging its Hickman Mill in Graniteville, S. C. A four-story addition, completion of which is expected this year, will accommodate about 17,000 new spindles and 240 new looms.

Hess, Goldsmith & Co., Inc., New York, N. Y., has set up a western division with headquarters in Los Angeles, Calif., to provide direct distribution of its glass fabrics to industrial users in California, Oregon, Washington, and Arizona.

To produce a special line of full-fashioned and fine gauge sweaters, jackets, T-shirts, and knitted shirts, **Jantzen, Inc.,** Portland, Ore., made

NON-FLUID OIL
TRADE MARK REGISTERED

IS ON THE BALL!

NON-FLUID OIL protects ball and roller bearing surfaces from friction *and* moisture by forming a perfect lubrication seal on bearing surfaces and also between rotating shafts and housing.

Year after year, more textile mills depend on dependable NON-FLUID OIL because it "stays alive" longer than ordinary greases and keeps bearings at peak performance —at lowest maintenance cost.

There is a special grade of NON-FLUID OIL for every type of ball or roller bearing. Send for Bulletin 506 and free testing sample of NON-FLUID OIL, stating size, speed, and type of bearing and machine.

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Please send me, without obligation, a free testing sample of NON-FLUID OIL.

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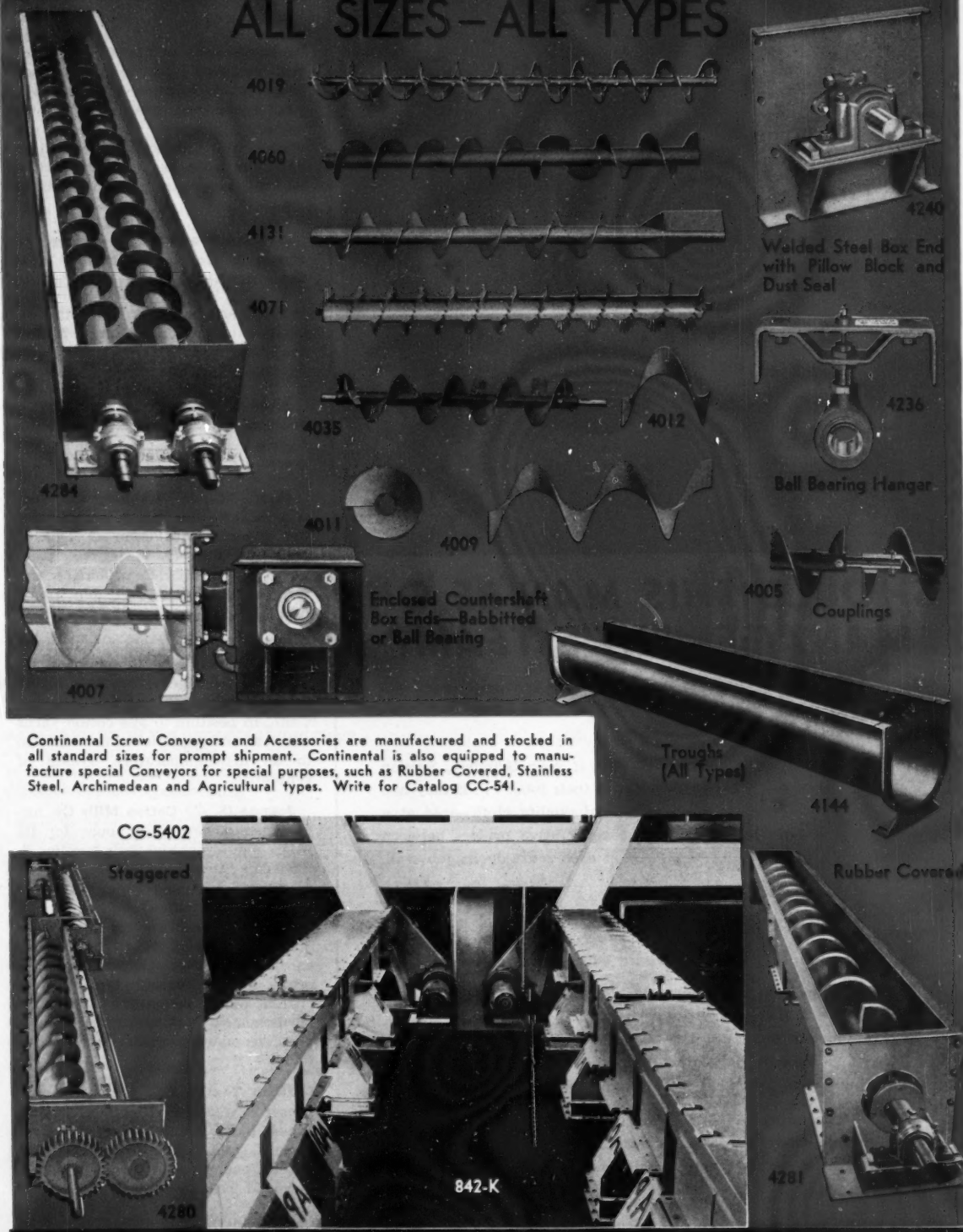
FIRM _____

ADDRESS _____

TYPE OF MACHINERY _____

Continental SCREW CONVEYORS

ALL SIZES—ALL TYPES



Continental Screw Conveyors and Accessories are manufactured and stocked in all standard sizes for prompt shipment. Continental is also equipped to manufacture special Conveyors for special purposes, such as Rubber Covered, Stainless Steel, Archimedean and Agricultural types. Write for Catalog CC-541.

Industrial Division **CONTINENTAL GIN COMPANY** Birmingham, Alabama

SHOULD THIS MAN BE ON MANAGEMENT'S TEAM?

This man belongs to one of the most important groups of employees in any mill—the Fixer Group. He's a KEY man. Other employees look up to him and follow his example.

What would be the results in your mill if your Grinders, Section Men and Fixers took a greater interest in their jobs? . . . If they had a clear realization that the production of quality cloth—sold at a profit in a competitive market—is a cooperative project between Management and Employees? . . . That each must do its job well, if each is to benefit?

Wishful thinking? Not at all. Fixers *will* take a greater interest in their jobs if you *sell* them on the need. Just telling them that the need exists won't do it. You have an educational job to do.

These men need to be taught the fundamentals of your mill's economy . . . WHY quality must be maintained or improved . . . WHY production must be more efficient . . . WHY cost must be reduced . . . through less waste—better use of supplies—preventive maintenance—and all-round better fixing.

Other mills are using SOUTHEASTERN'S twelve hour group training program for Grinders, Section Men and Fixers to help them do this job. We will be glad to furnish details and cost to you without obligation.

SOUTHEASTERN ENGINEERING CO.

WEST POINT, GEORGIA

What the TEXTILE MILLS are doing

an investment of $1,000,000 in new full-fashioned machinery, replacement of old knitting machines with new equipment, the addition of a battery of loopers, new sewing machines, flat-bed knitting machines, hemming machines, experimentation, and the training of inexperienced operators.

A $50,000 addition is planned by **Hariss & Covington Hosiery Mills, Inc.,** High Point, N. C.

Plans are being made for the expansion of the **John Hardy & Son, Inc.,** full-fashioned hosiery mill in Pulaski, Tenn.

Most of the knitting machinery of **William L. Hyman Hosiery Mills,** Ephrata, Pa., was destroyed by fire recently.

Mystic (Conn.) **Webbing Co., Inc.,** is a new narrow fabric manufacturing concern with John C. Duksta, president; Chas. J. Vaslet, vice-president; Herbert O. Boardman, secretary; and Samuel Greenstein, treasurer.

Installation of approximately $65,000 worth of new equipment, including a package dyeing unit, places **Jenkins-Wright Co.** of Los Angeles, Calif., in position to dye cotton yarns with vat and naphthol colors and also to do high-temperature dyeing of synthetics.

Joanna (S. C.) **Cotton Mills Co.** has provided a new club house for its Negro employees and their families. A modern kitchen, leather covered furniture, ping-pong tables and other facilities for indoor games, and a reading corner with current magazines are a few of its attractions. According to the company's house organ, "The Joanna Way," "The citizens of the community are proud of their new community center and are determined to make every use of it."

Jacob Textile Co., Inc., is a new concern weaving worsteds on 22 broad looms in Woonsocket, R. I. Ronald Lussier is president and superintendent; Alex Brenner, secretary and treasurer.

Dr. John W. Williams, professor of physical chemistry at the University of Wisconsin, received the $1,000 **The Kendall Co.** Award in Colloid Chem-

NITREX

makes modern "crinolines" really

STAND OUT

Modern as fashion's demand for petticoats that make bouffant skirts stand out is Naugatuck's special Nitrex® latex which gives them just the right combination of stiffness and flexibility. This is but one of an extensive family of aqueous dispersions of natural or synthetic latex and plastics produced by Naugatuck.

Each is custom-compounded for the exact job it is to perform, and is shipped *ready for use* from either Naugatuck or our Los Angeles plant. The almost endless variety of Naugatuck's Kralac®, Nitrex, and LOTOL® compounds provides the textile wet-processor a broad range of latex-base binders, finishes and printing assistants to help him obtain just the result desired... permanently!

Unlike many other materials formerly employed for these purposes, Naugatuck's latices don't wash out. The weave stability, hand and other properties they impart to the fabric *stay with it!*

Naugatuck, the world's leader in the field of latex compounding, offers you not so much a specific product as it does a *service*. A letter, wire or phone request will bring you expert processing assistance and result in the compounding of a material to fit exactly your particular processing requirements.

World's Largest Latex Producer and Compounder

Naugatuck Chemical

Division of United States Rubber Company
Naugatuck, Connecticut

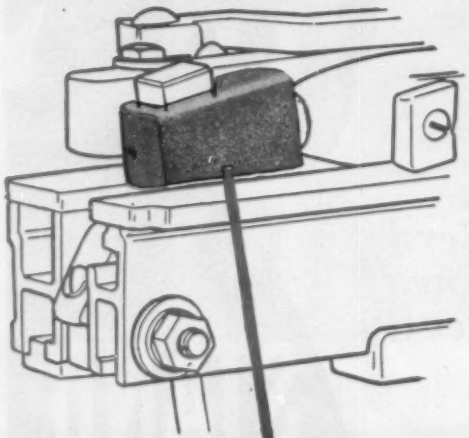
US RUBBER

BRANCHES: Akron • Boston • Charlotte • Chicago • Los Angeles • Memphis • New York • Philadelphia **IN CANADA:** Naugatuck Chemicals, Elmira, Ontario
Rubber Chemicals • Synthetic Rubber • Plastics • Agricultural Chemicals • Reclaimed Rubber • Latices • Cable Address: Rubexport, N. Y.

Save a Healthy

on check strap and loop picker costs

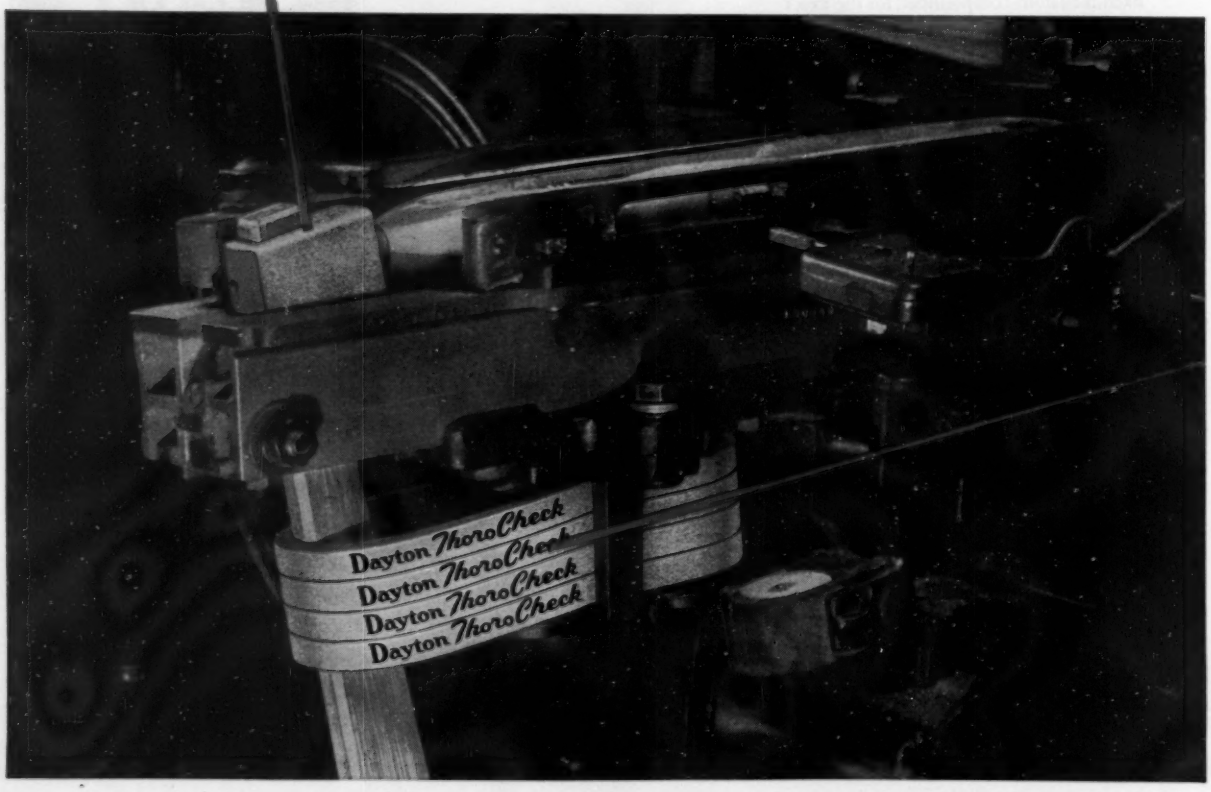
Mill-Proved Dayton Thorobred Loop Pickers and Dayton ThoroCheck Endless Check Straps are performing longer, increasing production and reducing maintenance cost on high speed looms everywhere.



Until you've used Dayton Thorobred Loop Pickers, you've no idea how much more efficient, economical and productive your looms can be. Proof of this is reflected in reports from leading mills . . . "picker costs cut by as much as 50%" . . . "production substantially up" . . . "quality materially improved!"

Made of the highest quality rubber and specially woven fabric, Dayton Pickers have the cushion, strength and durability to withstand the terrific poundings of high speed shuttles for double service life. And they give perfect shuttle contact because the picker stick hole is slightly tilted to insure exact fit on the stick. Daytons keep their shape and jerked-in fillings are practically eliminated.

Too, Dayton Pickers have a flared bottom at the tapered hole for easy, accurate seating on the stick without tearing the loop ply.



25 to 50 Percent

with these Thorobreds by Dayton

Built in one piece, there's nothing to break or expand when Daytons are driven onto the stick.

Dayton's special, precision process of molding fabric and rubber practically eliminates exterior roughness, leaving sides smooth and corners rounded, thus preventing hanging filling and lint pick-up. Daytons are *always* uniform in size and a narrow back eliminates wear on lay end strap.

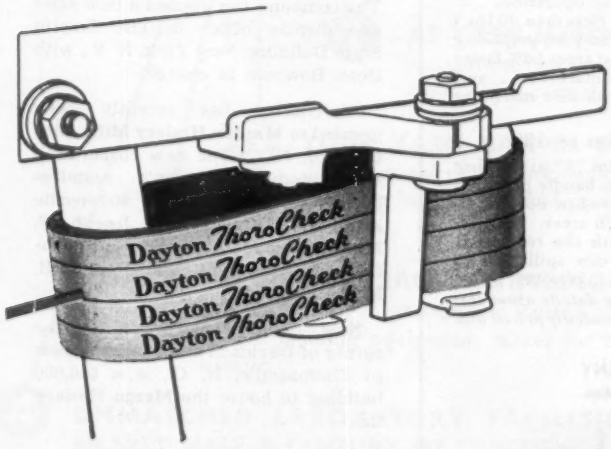
Economy . . . is one *big* reason why more and more mills are equipping their looms with Dayton ThoroCheck Endless Check Straps. They're saving a healthy 25% to 50% in strap costs alone after converting to Daytons—more in time, labor and maintenance! That's because these revolutionary Dayton Endless Check Straps outperform and outlast all other straps in actual mill applications!

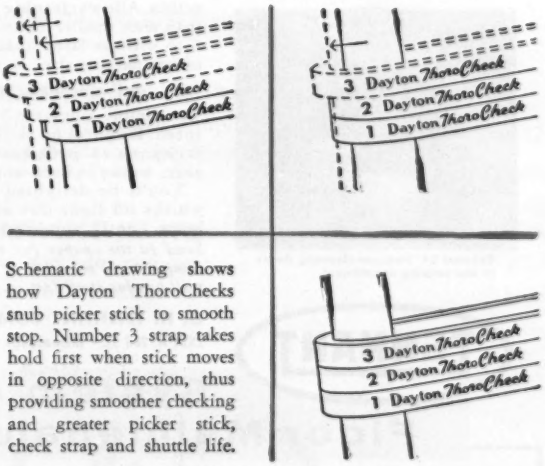
Proof of this: A large southern mill installed them on their X-2 looms. After running Daytons on a 5 day a week, round-the-clock operation for more than 2400 hours, they found no signs of wear and no adjustment was needed . . . and the Daytons are still good for many more months of efficient, economical service. By comparison, other check straps lasted only half as long.

A few of the reasons for such amazing performance are: Dayton ThoroChecks are specially designed and built for safe checking. They eliminate drag over the stick, stop it with a graduated braking action (see diagram), and perform efficiently at the highest speeds.

You get fast, efficient Monday morning starts, too, with Daytons because they're not affected by temperature or humidity. There's no "growing" or elongation, little or no adjustment needed. And, when replacement does become necessary, they may be replaced singly or in sets.

Besides the lower maintenance cost and reduced downtime, you'll get higher production in your weaving operation with Dayton ThoroCheck Endless Check Straps. Make a personal test today. For complete profit-making details write to Dayton Rubber Co., Textile Div., Dept. 365, 401 S. Carolina National Bank Bldg., Greensville, S. C.





Schematic drawing shows how Dayton ThoroChecks snub picker stick to smooth stop. Number 3 strap takes hold first when stick moves in opposite direction, thus providing smoother checking and greater picker stick, check strap and shuttle life.

GOLDEN JUBILEE

Dayton Rubber 50 YEARS OF PROGRESS

© D.R. 1955

DAYCO AND DAYTON THOROBRED TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

Model "E" with hood end-cover removed. Note vacuum skirt.

...faster, easier
care of mill floors

TENNANT Model E

FLOOR MAINTENANCE MACHINE

Features

- Works FAST; propels itself.
- Rugged, yet weighs less than 90 lbs. Highly portable.
- Does CLEAN job; has new, powerful vacuum (3450 rpm fan).
- Operates on 115 v. AC.
- Has wax bar attachment for polishing office areas.

Exceptionally easy to use, this compact new 21" TENNANT Model "E" Machine offers important new advantages in floor care . . . in speed . . . convenience . . . low-cost operation.

It combines light weight (less than 90 lbs.) with a powerful vacuum and *self-propelling* action. Allows cleaning most areas 50% faster than with smaller TENNANT machines . . . and 3 to 4 times faster than with disc machines of comparable size.

Self-propelling; requires no skill

You simply guide the Model "E" at walking speed. Requires no skill, no handle pressure. It cleans a 21" path, has extra-low nose clearance, works in hard-to-reach areas.

You'll be delighted with the results. It whisks off light dirt and oily spillage . . . helps "heal" abrasions . . . restores gloss. *Send in the coupon for more details about this compact new machine. It is modestly priced and will pay for itself fast.*

Tennant 24" sweeper cleaning floors in mercerizing department.

G. H. TENNANT COMPANY
2524 N. 2nd St. • Minneapolis 11, Minn.

TENNANT

System of
Floor Maintenance

Write today!

G. H. TENNANT COMPANY TI
Minneapolis 11, Minn.

Please send details about the new Tennant 21" Floor Maintenance Machine—the Model "E".

NAME_____

COMPANY_____

ADDRESS_____

SPECIALIZED MAINTENANCE EQUIPMENT

What the TEXTILE MILLS are doing

istry during the 127th national meeting of the American Chemical Society. The award was established by this textile manufacturer "to recognize and encourage outstanding contribution to the science of colloid chemistry in the United States and Canada."

The Reading, Pa., plant of **Ladd Knitting Mills, Inc.,** is now being utilized exclusively by the Talbott Sweater Division for the manufacture of sweaters, and all full-fashioned hosiery is being produced at the Sinking Spring, Pa., mill. The company has launched a $500,000 expansion program which includes construction that will provide 18,000 sq ft additional space at the Reading plant. The Lee I. Robinson, Inc., sweater manufacturing plant which was purchased by Ladd last year is to be sold as a "going industry," according to Lester C. Laufbahn, president.

New looms to be utilized for the manufacture of upholstery, drapery, casement, and various specialty cloths have been purchased by **Louisville** (Ky.) **Textiles, Inc.** * * * The company has opened a new sales and display office in The Empire State Building, New York, N. Y., with Dean Bowman in charge.

A charter has recently been granted to **Mardon Hosiery Mills, Inc.,** Concord, N. C. The new corporation will produce women's seamless hosiery with about fifty 400-needle machines. Officers are Joseph F. Miller, president; Martin H. Leventhal, vice-president; and Donald B. Miller, treasurer.

Now under construction at the corner of Davidson and Jacobs Streets in Thomasville, N. C., is a $50,000 building to house the **Margo Hosiery Co.**

Marian Textile Corp. has been organized as a commision synthetic top making concern. The plant will be located in the Woonsocket, R. I., area, with approximately 2500 sq ft of floor space. Leon G. Hazebrouck, formerly superintendent of French Worsted Co.'s combing plant, is president and treasurer.

$2 million in annual sales is the goal **Maryon Hosiery Mills, Inc.,** Carrollton, Ga., has set for itself in ex-

Franklin Process

COLORED YARNS

4 EXCLUSIVE FEATURES
Which Protect Your Investment

When you make colored yarn fabrics your investment is heavy and your risks are multiplied. So why take chances? Why not come to Colored Yarn Headquarters and get these four exclusive protection features, as well as the normal quality and service you expect from any yarn dyer? —

1. **AS YARN MERCHANTS,** we select and purchase for your account the best yarn for the purpose, thus saving you time and trouble and centralizing responsibility.

2. **YOUR YARN CAN BE DYED IN 2500 LB. BATCHES,** if your requirements are sufficiently large, which simplifies color handling in your mill and practically eliminates the shade variation problem.

3. **THE LARGEST PACKAGE DYEING CAPACITY IN THE WORLD,** with 5 strategically located plants, and adequate, up-to-date winding equipment, makes for better than average deliveries.

4. **UNMATCHED LABORATORY FACILITIES AND NEARLY HALF A CENTURY OF EXPERIENCE** practically guarantee consistent quality in yarns and colors.

Don't take chances. Protect your investment. Get in touch with our nearest plant, when you need colored yarn or yarn dyeing service.

Franklin Process

COTTON YARNS & CUSTOM YARN DYEING

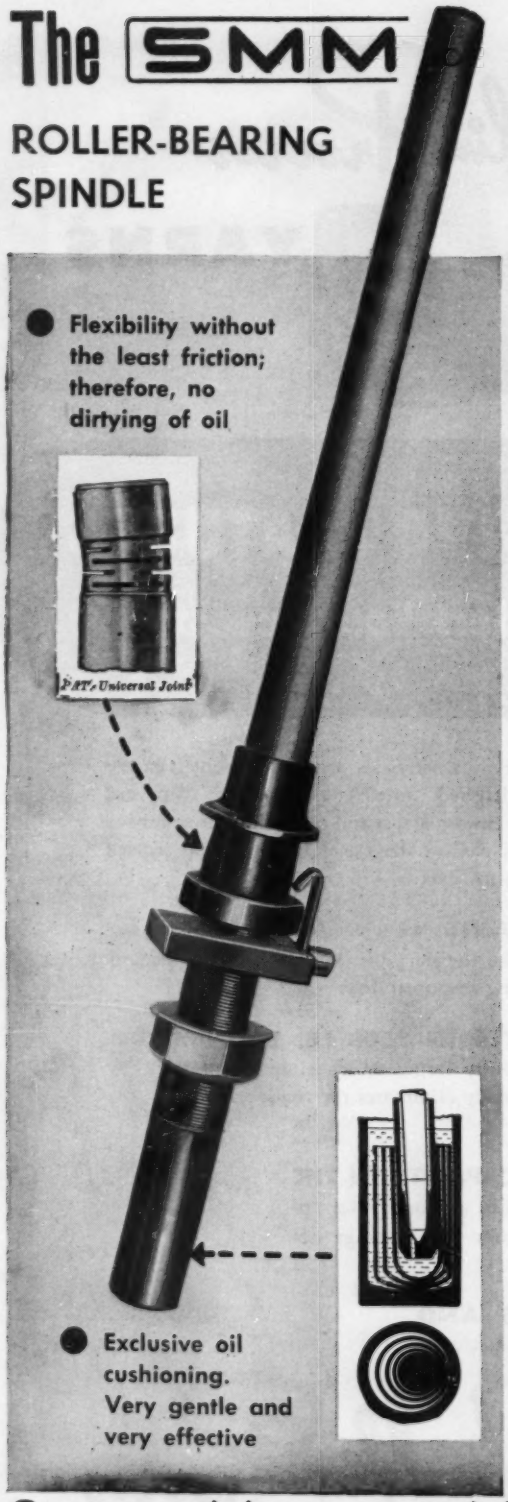
New York Representative — 40 Worth Street

PROVIDENCE • PHILADELPHIA • GREENVILLE

CHATTANOOGA • FINGERVILLE, S. C.

The SMM ROLLER-BEARING SPINDLE

For Higher
EFFICIENCY
and Greater
ECONOMY


Flexibility without the least friction; therefore, no dirtying of oil
P.S.T. Universal Joint
Exclusive oil cushioning. Very gentle and very effective

20,000 Hours and more with same oilfilling.

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No edge pressure on the rollers. No chafing corrosion.

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Amazingly smooth running results in less thread breakages, in a more uniform quality of thread . . . permits higher speeds and increased traverse.

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Minimum Maintenance

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Minimum power consumption.

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•

Built for any kind of bobbin. For twisting, spinning and throwing. For light and heavy duty.

•

You are cordially invited to visit our booth in Hall 3 at the Second International Textile Exhibition in Brussels— June 25 to July 10, 1955.

Spindles, Motors and Machines Ltd.
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NORTH AMERICAN REPRESENTATIVE
GUBELIN INTERNATIONAL CORPORATION
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Box 1555 • Greenville, S. C.

What the TEXTILE MILLS are doing

panding its production facilities. New 54-gauge stripers and 24-gauge reverse plait wrap machines are on order.

A branch plant in Summit, Miss., is planned by the **McComb** (Miss.) **Mfg. Co.** Containing approximately 40,000 sq ft floor space, it will be known as **Summit Mills.**

Mercury Dyeing and Finishing Co., Inc., is a new corporation recently formed in Lodi, N. J., with Anthony Basilio as president.

A new company, **Merrimack Textile Fibers, Inc.,** recently purchased the No. 2 mill of Newmarket Manufacturing Co. in Lowell, Mass., for the processing of textile fibers. Officers are Selby Groff, president; Franklin Swain, vice-president; Joseph Duffy, treasurer; and Benjamin Cooper, general manager.

Elasticized nylon full-fashioned hosiery for women, called the "Magic Stretch" line, is being produced by **Nebel Knitting Co.,** Charlotte, N. C.

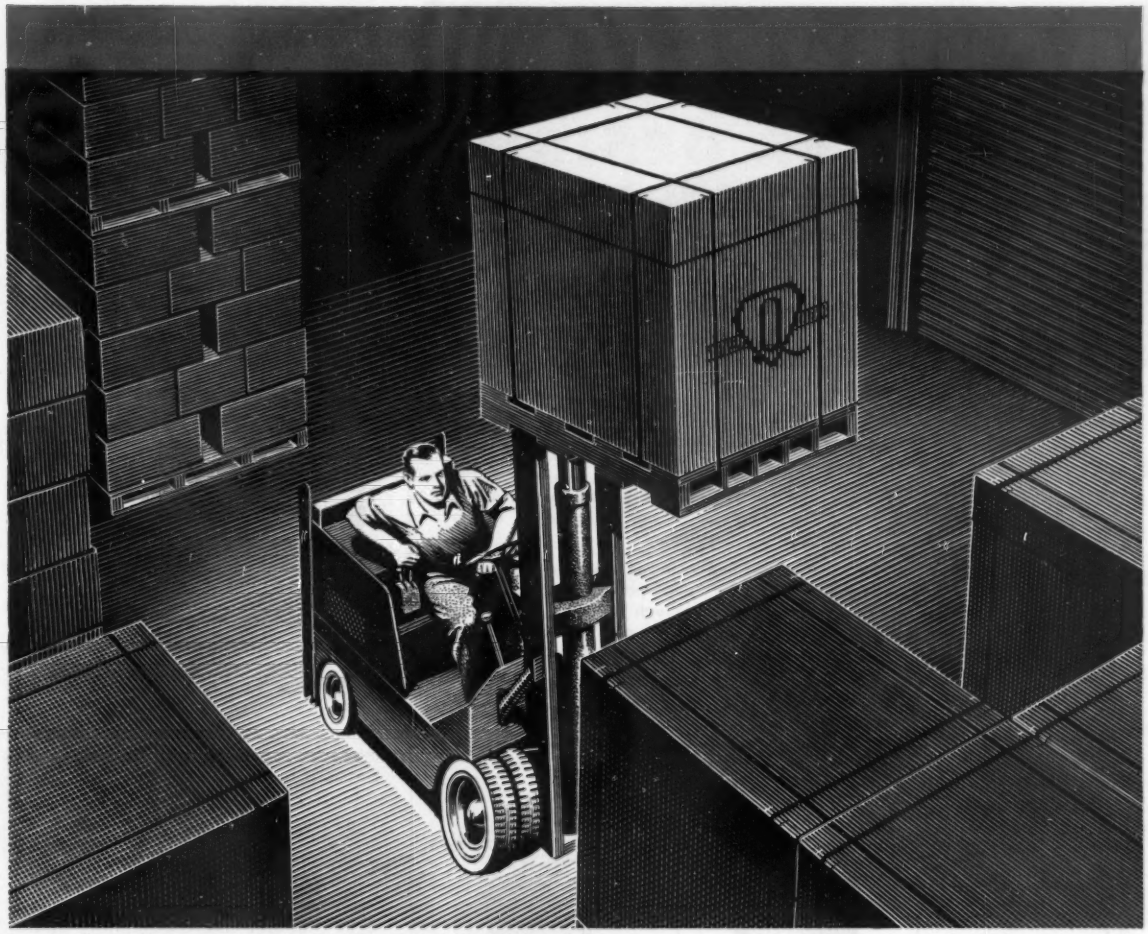
Newport Finishing Corp., Fall River, Mass., has purchased a three-story mill adjacent to its present plant facilities as a part of a major expansion program.

A new piece dyeing department at **Nicetown Dye Works,** Philadelphia, Pa., is equipped with seven paddle dyers. Of 100, 200, and 300 pounds capacity, the machines are used in dyeing and finishing sweaters in complete and strip form.

Philco Dyeing and Finishing Co. is a new concern at 136 East Seventh St., Paterson, N. J. Philip La Monica, formerly a converter with Burlington Industries, is president; Sisto Vinci, treasurer; and John Bartolozzi, secretary. Mr. Vinci and Mr. Bartolozzi were formerly partners at Peerless Dyeing and Finishing Co., Paterson.

A number of looms were recently purchased from the Grosvenor Dale, Conn., plant of Cluett, Peabody & Co. by **F. W. Poe Manufacturing Co.,** Greenville, S. C.

Princeton Knitting Mills, Philadelphia, Pa., has set up West Coast operation under the name **Princeton Knitting Mills of California, Inc.** Of-



Help your product "STACK UP" BETTER

Gaylord Boxes

In the warehouse you'll save valuable space because precision-made Gaylord Boxes stack solid, straight...and taller.

In shipment your products will "stack up" better in the eyes of all who see them when they're dressed in eye-catching Gaylord containers.

On arrival your products will "stack up" best; for protection-engineered Gaylord Boxes deliver them in the same good condition in which they left your plant.

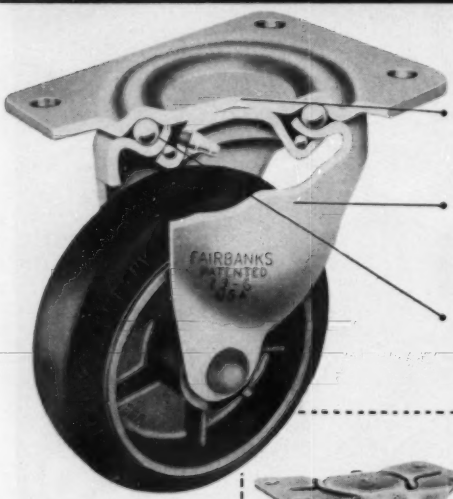
Stack the cards in favor of your product. Call your nearby Gaylord sales office today!

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT PAPER AND SPECIALTIES • KRAFT BAGS AND SACKS

GAYLORD CONTAINER CORPORATION ★ ST. LOUIS

SALES OFFICES FROM COAST TO COAST ★ CONSULT YOUR LOCAL PHONE BOOK

ACHIEVEMENT
IN CASTER DESIGN
FAIRBANKS
"LOCKWELD" Swivel Casters — Without King-Pin!



CHECK these unmatched advantages:

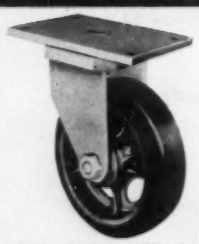
- No King-Pin. Patented "LOCKWELD" construction eliminates the major cause of caster failures.
- Patented leg design—spherical shape provides greater strength through better dispersion of shocks and overloads, easier swiveling under load.
- Larger raceways and ball bearings — perfectly aligned by the rigid welded structure — give faster, easier swiveling action.

Fairbanks Series "23" double ball race swivel casters, for medium duty, sizes 3" to 8".

Fairbanks Series "33" rigid casters, match Series "23" casters in height, sizes 3" to 8".

Fairbanks Series "21" single ball race swivel casters, for regular duty, sizes 2" to 6". Matching rigid Series "31" casters available.

HEAVY DUTY STEEL CASTERS



Fairbanks Series "27" double race swivel casters, for heavy duty, sizes 6", 8" and 10".

Fairbanks Series "37" rigid casters match the Series "27" casters in height, sizes 6", 8" and 10"

Fairbanks Series "500" Vulcanized Rubber Tired Wheels, roller bearing, sizes 3" to 18". Standard of the industry

YOURS ON REQUEST: Casters and wheels catalog complete with specifications and details. Write for your free copy today.

Order Fairbanks products through your local distributor who is always ready to serve you.

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393 Lafayette Street, New York 3, New York
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Valves • Truck • Casters • Wheels • Dart & "PIC" Unions

What the TEXTILE MILLS are doing

fices of the new company are in Los Angeles.

The Gold Award in the Miscellaneous Division of the 19th annual Variety Store Merchandiser Packaging Competition was won by the **Pioneer Knitwear Co.** of New York

City for the infant's knit sweater set package shown here. Designed by David Kurtz of Pioneer, the box was manufactured by Samuel Barnett Co. of Philadelphia.

Quaker Meadows Mills, Inc., Hildebran, N. C., has started expanding operations and is constructing a new office building. New machinery and equipment being installed, including 10 spinning frames and two winders, is expected to increase the company's output by 50 per cent.

It is expected that 150 additional machines will be installed during the expansion program at **R & H Hosiery Mill, Inc.,** Galax, Va., with 75 to 100 employees being added to the payroll. The company is manufacturing women's rayon and cotton hose for the wholesale and chain store trade, with only knitting, looping, and inspecting being done at present in the Galax plant. Finishing is done at another plant.

Argyle and overplaid knitting machines are included in $250,000 worth of new machinery now being installed at the **Slane Hosiery Mills, Inc.,** High Point, N. C. New quality and production control systems have been installed, according to an announcement.

Johnston, S. C., has been selected as the location for a new fabricating plant for the **Riegel Textile Corp.,** New York, N. Y. The new plant will

Now is the time to consider how you can

spruce up your back to school wear with new

*LENRA DYES

for

†ARNEL

TRIACETATE

As Arnel begins to go places, A.A.P. proudly presents its new **LENRA DYES,** a selected group of disperse type colors designed to help you make the most of the outstanding properties of this exciting new fiber. To start off right with Arnel, start with the research-proved colors which help keep Arnel washable and are stable to the heat setting conditions which make Arnel wrinkle-resistant and glaze-resistant.

Intensive tests by the A.A.P. research laboratory have demonstrated the all-around suitability of **LENRA** colors for the dyeing and printing of Arnel. Available in a wide range of brilliant and beautiful shades, the **LENRA** group offers excellent fastness to washing ... light ... and sublimation.

Many of the **LENRA** colors are presently being used satisfactorily by Celanese Corp. of America, the makers of Arnel Triacetate fiber.

For full details and working samples, consult our nearest branch. An informative A.A.P. manual on the dyeing of Arnel is available. We invite you to request a copy now.

*Trade Mark Reg. Pending
†Trade Mark

AAP

AMERICAN ANILINE PRODUCTS, INC.

Ideal

The strength and evenness of sliver drafted on Ideal High Speed Ball Bearing Drawing* is far superior to that produced on any other equipment. Mill records show an average of 8.7% greater breaking strength and over 33% less variation. These figures are of tremendous importance because you cannot correct a defect made in the drawing process.

Ideal Drawing is built on an entirely new principle. The stock is given only a light feathertouch as it runs through, automatically evening-out thick and thin places. Patented construction maintains this light feathertouch month after month . . . year after year . . . without adjustments and without maintenance. What's more, Ideal Feathertouch Drafting cannot crush, bruise, or cut fibres, or damage stock in any way. Unequalled quality is only one of the many advantages of Ideal Drafting. Others are (1) greatly increased production per frame, (2) reduced operating and maintenance labor, (3) lower initial investment, (4) saving on floor space, etc.

Call, write, or wire for full information.

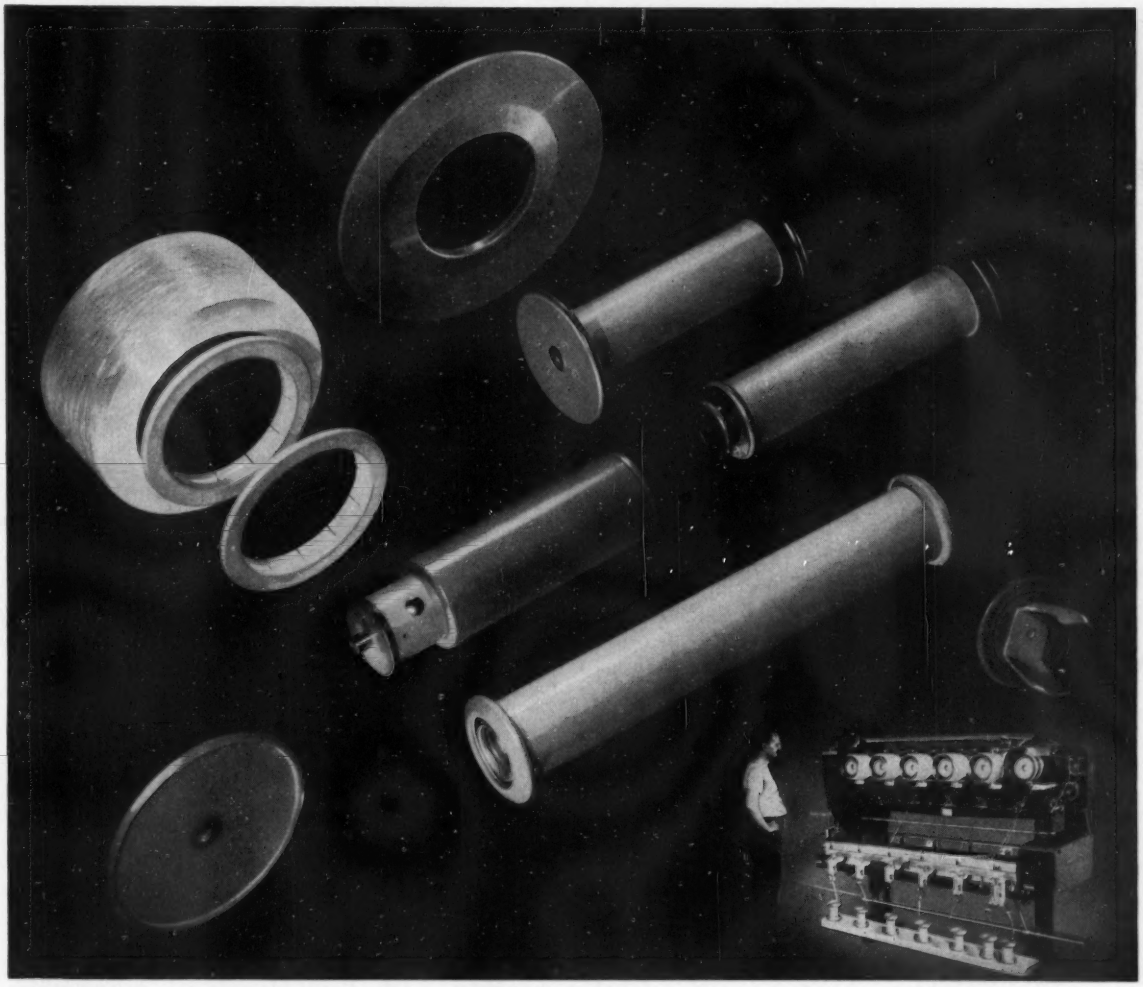
*Patent Nos. 2,610,363; 2,490,544; 2,412,357. Other patents pending.

Feathertouch

DRAFTING

Sets New Standards

Ideal Industries, Inc.
Bessemer City, N. C.



How a Tough Plastic helps make Fine Fabrics

● *Synthane* laminated plastics are naturals for the textile industry. Bobbins, textile rollers, redraw caps, headless package tubes and many other essential products are made from *Synthane*.

The reason is simple: *Synthane* has the right combination of properties.

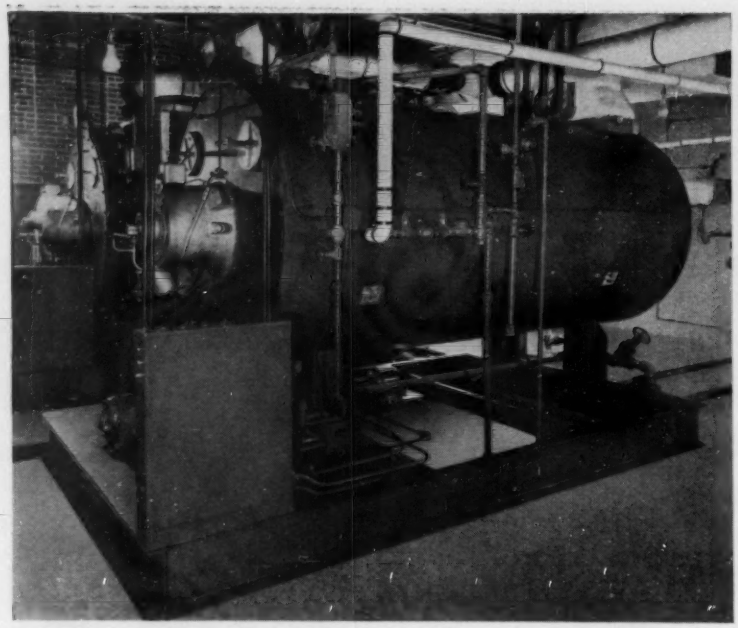
Synthane is hard, dense and super-smooth; it won't snag fine yarns. It is strong and tough. It is machinable to close tolerances and dimensionally stable. It's light weight, only about half that of aluminum, helps bobbins to start and stop quickly and easily.

Add these properties together and you will see why *Synthane* is used so extensively in textile production. Pirns, Dacron redraw caps, hosiery turning and examining forms, and sizing bobbins are all made of *Synthane*. Nylon sizing machines use *Synthane* piping because *Synthane* is highly resistant to polyvinyl alcohol and other commercial sizes.

The *Synthane* textile catalog is full of interesting and money-saving information. Drop us a request and we'll be glad to send your copy by return mail. Write us at 9 River Road, Oaks, Pennsylvania.

SYNTHANE CORPORATION, OAKS, PA.
Textile Division

SYNTHANE
LAMINATED S PLASTICS



Powermasters Cut Steam Costs 20%!

By replacing an old coal-fired boiler with the modern 200 HP *Powermaster* Packaged Automatic Boilers shown above, a textile company cut its costs of producing steam for processing and heating by 20%. In addition, steam quality went *up* and boiler maintenance went *down* when the *Powermasters* went in. Low-cost, simplified installation, high fuel economy at all loads, fast-steaming, quick response to load changes, time-saving attention, maintenance-saving accessibility, dependable performance, automatic operating and safety controls, and hospital-clean operation are reasons why steam costs go down where *Powermasters* go in.

Have you checked your steam costs lately? You can now put *Powermaster* economies into your boiler room on a "pay-as-you-save" purchase plan. Get the complete cost-saving story on *Powermaster* now—send for descriptive bulletin!

O&S Powermaster®

PACKAGED AUTOMATIC BOILERS

Sizes to 500 HP; pressures to 250 psi.

ORR & SEMBOWER, INC.

Morgantown Road, Reading, Pa.

What the TEXTILE MILLS are doing

be an air-conditioned building of approximately 150,000 sq ft. When in full operation, it will employ about 400 people, 90 per cent of whom will be women since the principal operations in the plant will be the sewing of diapers and pillowcases.

In order to improve packing room work and to facilitate truck loading, **Stowe Mills, Inc.,** has built a small addition to Mill No. 3 in McAdenville, N. C.

The old Pembroke Mill in Suncook, N. H., of Textron, Inc., has been purchased by Mack Kahn, president of Amoskeag Mills, Manchester, N. H., who will operate the plant under the name of **Suncook Manufacturing Co.**

Templon Spinning Mills, Inc., Mooresville, N. C., has constructed an addition to its present plant. The expansion adds about 11,000 sq ft of floor space and creates the need of employment of 50 new operatives.

Textron American, Inc., was formally created at recent board meetings of **Textron, Inc., American Woolen Co.,** and **Robbins Mills, Inc.,** and officers of the new corporation were elected. They are: Royal Little, chairman; Robert L. Huffines, Jr., president; and Joseph B. Ely, chairman of the executive committee; Harry J. Burkart, vice-president; Laurence C. Plowman, vice-president; William D. Mewhort, vice-president and treasurer; and Robert R. Thurber, vice-president and assistant secretary. Cecil E. Whitney was elected secretary.

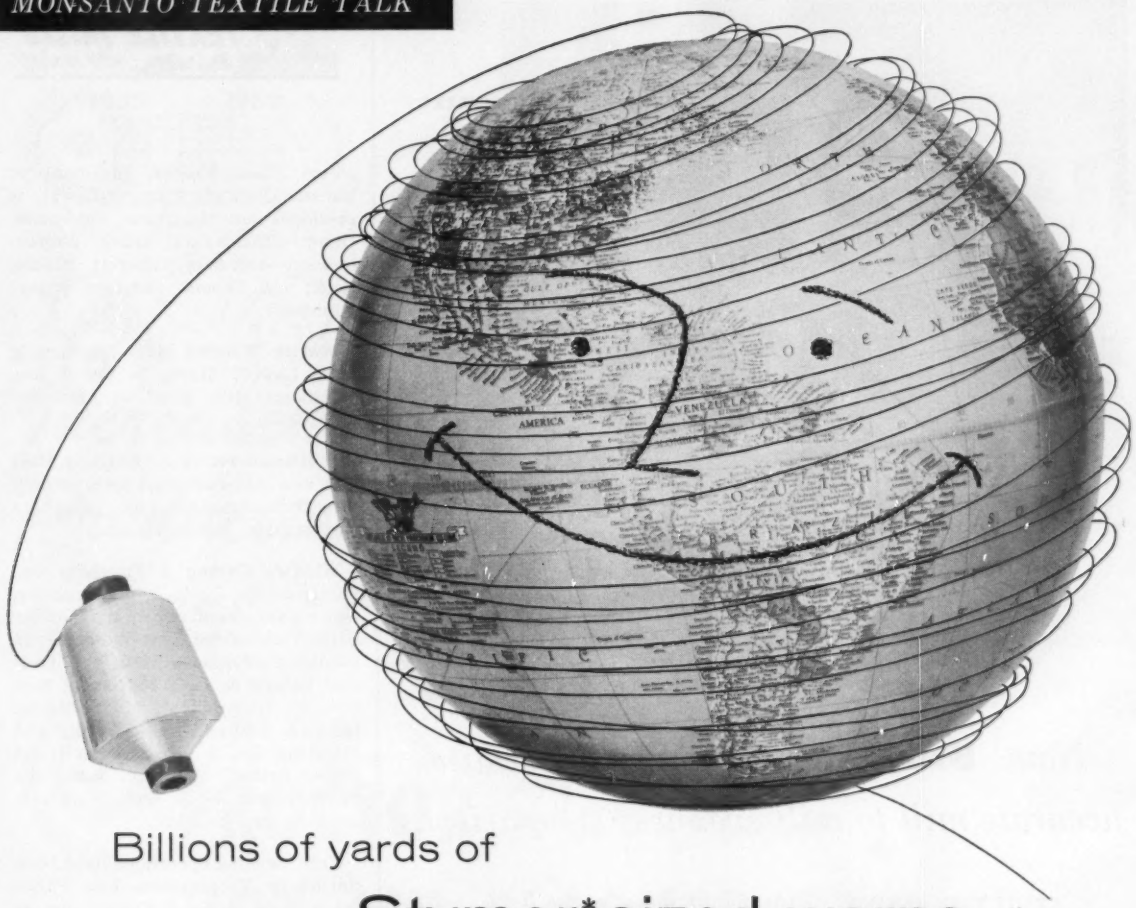
Tri-Color Dyeing & Finishing Co., Inc., Paterson, N. J., has been liquidated.

Union Mills, Monroe, N. C., is planning to construct an addition to house more machinery.

The **United States Rubber Co.** has acquired the productive facilities of the **Para Thread Co. of North Carolina, Inc.,** in Raeford, N. C., to be used for manufacture of Lastex yarns for the weaving and knitting trades.

Vanetta Velvet Mfg. Corp. is a mill being established at 169 Cabot Street in Lowell, Mass. Special imported looms are being installed, and it is expected that about 100 persons will be employed when the plant is com-

MONSANTO TEXTILE TALK



Billions of yards of

Stymer* sized warps

have improved the weaving of

quality cloth!

STYMER S is the name of a special resin that Monsanto pioneered for the synthetic sizing of filament acetate yarn.

It saves time and labor, and its actual cost per thousand yards of warp is highly favorable.

The uniformity of this Monsanto resin simplifies the preparation of the sizing solution. Large mixes can be stored for long periods. Stymer S solutions are stable—will not mildew or sour.

When properly dried, Stymer sized warps separate at the lease rods with exceptional ease. This property, together with the fact that Stymer S does not gel in the size box during stops, makes it possible to lease in size.

The efficiency of weaving Stymer sized warps has been proved on bright and dull yarns, on high, and low sley, on taffetas, plain weaves, twills, French crepes, tissue failles, satins, shirtings, luana, shantung, flat crepes, Bedford cords and georgettes.

Any fabric sized with water-soluble Stymer S can be stored indefinitely before de-sizing. Stymer S is easily removed by a mill scour, followed by a thorough rinsing.

Monsanto's technical staff stands ready to assist you with any sizing problems you may have. Write Monsanto Chemical Company, Plastics Division, Dept. TI-5, Springfield 2, Mass.

For efficient, uniform sizing... specify

Stymer S

MONSANTO

*STYMER: REG. U. S. PAT. OFF.

UNIFORMITY ANALYZER* checks and grades uniformity of yarn, roving, or sliver.

Now! **Brush Yarn Rewind** *permits accurate mill to mill evenness comparisons*

THE YARN REWIND extends the usefulness of the Uniformity Analyzer or similar electronic evenness testing equipment. It permits winding a test sample on a paper tube automatically. Thus, you can retest the same length of yarn to check the equipment or obtain more accurate evenness data for comparisons between mills. This permits you to send both a chart record and the actual sample of yarn where an outside comparison is to be made.

Brush offers precision textile instruments . . . Uniformity Analyzer*, Tension Analyzer*, Imperfection Counter, Lapcheck and others . . . with trained servicemen and a complete stock of parts in the Brush Southeastern Office for your service.

For information, write Brush Electronics Company, Dept. T-5, 3405 Perkins Avenue, Cleveland 14, Ohio. *Southeastern Office:* 91 Cleveland St., Greenville, South Carolina. (Phone 5-4079).

*Trade-Mark

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INDUSTRIAL AND RESEARCH INSTRUMENTS
PIEZOELECTRIC MATERIALS • ACOUSTIC DEVICES
MAGNETIC RECORDING EQUIPMENT AND COMPONENTS

Division of Clevite Corporation

What the TEXTILE MILLS are doing

pleted. Ross Washer, president of Vanetta Corduroy Corp. of Lowell, is president of the new enterprise. Other officials are: Larry Washer, treasurer-secretary; Everett Hindle, clerk; and Thomas Panciera, superintendent.

Warley Worsted Mills are moving from Lowell, Mass., to the former Wuskanut Mills plant in Farnumsville, Mass.

Williamstown (N. J.) **Knitting Mills** is a new full-fashioned sweater mill recently organized by Abraham Kopeika and Morris Poupko.

Windsor Dyeing & Finishing Co., Paterson, N. J., is a new concern which has taken over the former Falls View Piece Dye Works. Fred Dombrow, formerly with the Bedford Dyeing & Finishing Co. of East Newark, is president; Mike Liberte, formerly with Primrose Dyeing and Finishing Co., is vice-president; and Olive Brune, formerly with the Poughkeepsie Piece Dye Works, is secretary and treasurer.

Yarn twisting operations have been started by **Yarncrafters, Inc.**, Philadelphia, Pa. John J. Cabrey, Jr., is president, and R. M. Cabrey, secretary.

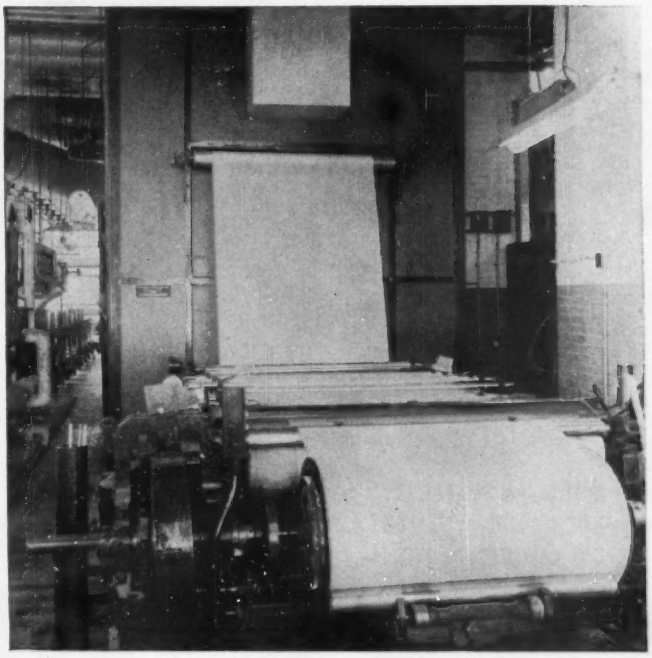
Waverly Mills, Inc., Laurinburg, N. C., plans the addition of 37,000 sq ft floor space.

Weindorf & Swanson, Oakland, Calif., garment dyers, are now engaged in the dyeing of rugs and carpets.

Currently under construction is a new addition to the boarding room of **Wiscassett Mills Co.,** Albemarble, N. C.

This year marks the 50th anniversary of **J. W. Wood Elastic Web Co.,** Stoughton, Mass., in the elastic webbing business.

Note: *If "Textile Industries" is not already on the mailing list for the employee publication published by your textile manufacturing plant, the editors would very much appreciate receiving it regularly. Please send yours to The Editor, "Textile Industries," 806 Peachtree St., N. E., Atlanta 5, Ga.*



Increased Production AT LESS COST

with the

PROCTOR *Par Flow* HOT AIR SLASHER *Dryer*

INCREASED PRODUCTION IS ASSURED WITH

- Patented parallel flow nozzle ducts which prevent warp tangling and rolling.
- Complete accessibility for easy cleaning.
- Availability in various sizes to meet plant requirements in capacity and warp width.

PROCESSING MACHINERY FOR FIBERS AND BLENDS

PROCTOR & SCHWARTZ INC. PHILADELPHIA 20 • PA •

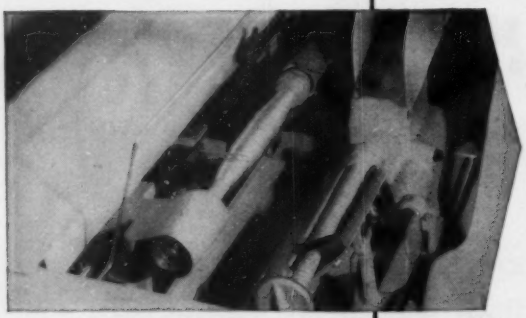
FOSTER-MUSCHAMP MODEL 66

Automatic FILLING WINDER

(Made in Westfield, Mass., U.S.A.)

MODEL 66 FEATURES WHICH CONTRIBUTE TO LOW OPERATING COST

Magazine Creel for 4 lb. Cones



Automatic Donning and Doffing of Cones

Automatic Pinboarding

ALSO 15,000 R. P. M. SPINDLE SPEED

OPERATING COST

AS LOW AS ¼¢ PER LB. OF YARN QUILLED

For example, when equipped with magazine creel carrying 4 lb. cones, central bobbin hopper replenisher and automatic pinboarder or filling box stacker and when quilling 20,000 lbs. of 150 denier rayon in 40 hours the time required for operating labor is as follows:

	Time per Package	*Time for 20,000 lbs.*
Creeling in	.25 min.	1250. min.
Piecing up broken ends (1-½% breakage)	.11 min.	550. min.
Supplying pinboards	.0488 min.	244. min.
Other duties (5% tot. time)	.024 min.	120. min.
Personal time (5% tot. time)	.024 min.	120. min.
TOTAL TIME (1 operator 40 hrs.)	.4568 min.	2284. min.*

*Note there are 2400 minutes in 40 hours.

Standard hourly rate of 1 operator times 40 hrs. divided by 20,000 equals $ .0025.

Compare these figures with your own operating costs or with those of any competing automatic winder and decide for yourself if the Model 66 is worth investigating. Then learn all about its 8 POINTS OF SUPERIORITY; send for FOSTER FACTS — Volume 4 — Number 5.

FOSTER MACHINE COMPANY

A Winder for Every Textile Purpose

Westfield, Massachusetts, U.S.A.

Southern Office—Johnston Bldg., Charlotte, N. C.

Here's help for more efficient bleaching . . .

Just one part of DU PONT'S COMPLETE TEXTILE BLEACHING SERVICE

In addition to authoritative booklets and fact-filled technical bulletins like these, Du Pont's *complete* textile bleaching service includes:

ON-THE-SPOT HELP with any immediate bleaching problem.

SPECIAL MODERNIZATION SERVICE to help you with your expansion plans.

CONFIDENTIAL BLEACHERY SURVEY to help you maintain or improve bleaching efficiency.

BULK-STORAGE SYSTEMS to help you buy and store peroxide in money-saving quantities.

TOP-QUALITY BLEACHING AGENTS to give you uniform bleaching results.

FOR FULL DETAILS call your nearest Du Pont District Office or write to: E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Wilmington 98, Delaware.

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*Barada & Page, Inc.

DU PONT PEROXIDES

ALBONE® hydrogen peroxide, 35% and 50%

PERDOX® sodium borate perhydrate

SOLOZONE® sodium peroxide

Sodium perborate tetrahydrate

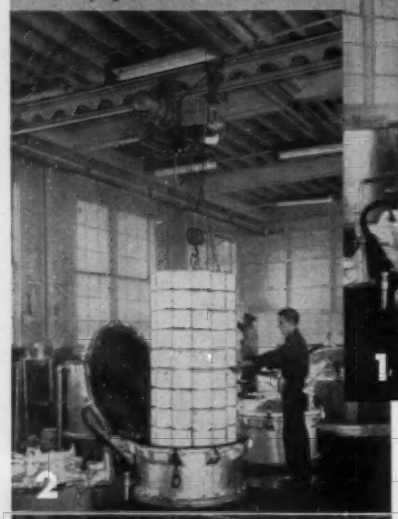
DU PONT
REG. U.S. PAT. OFF.

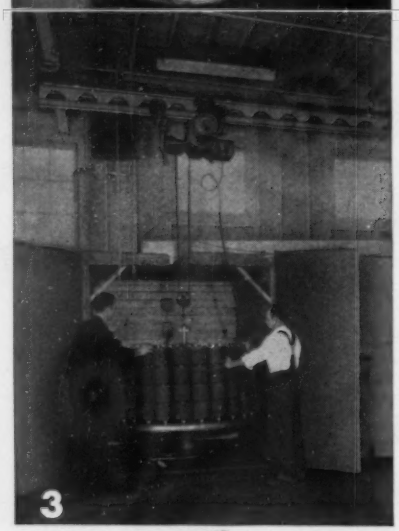
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

1 Loading a 500-lb. package dyeing machine with the Tramrail Crane. This same 2,000-lb. capacity hand-propelled crane with electric hoist is used for handling operations shown in other illustrations.

2 Lowering a load into a 300-lb. dyeing machine.

3 Placing a load of yarn into a drying chamber.





Package Dyeing and Drying Made Easy

Handling packaged yarn through dyeing machines, extractors and drying chambers is fast and easy when Cleveland Tramrail equipment is provided.

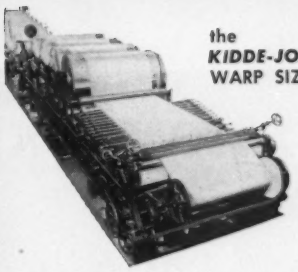
Carolina Insulating Yarn Company, Winston-Salem, N. C., is one of many textile mills that have found it profitable to use an inexpensive hand-propelled crane with electric hoist to do this work. They have eliminated the need of hard manual lifting and hauling. As a result, production has been stepped up, costs cut and safety aided.

Because so many important advantages ensue from the installation of Cleveland Tramrail equipment, we urge you to study your handling operations and check with a local Cleveland Tramrail engineer as to what can be done to best serve your needs.

GET THIS BOOK!
BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy.

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
2875 East 287th Street, Wickliffe, Ohio

CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT



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WARP SIZER

Precise control of size temperature, drying heats, speeds and stretch. Super-press quetsch provides uniform moisture extraction. Visual stretch indicator reveals degree of stretch as warp passes through. Adjustable width beam carriages. Stainless steel size box, immersion, quetsch and idler rolls, and cylinders. Available with 7, 9, 11 or more cylinders for either silk or cotton system warping or combinations of both.

Do your slashers meet these 5 tests?

1. Do they give you warps on which the amount of size is even from one end to the other and uniformly dried so that there is no trace of streaks?

2. Do they give you visual, fingertip control of stretch so that you can get uniform stretch through the entire warp or a whole series of warps?

3. Do they give you hard, smooth loom beams that do not make trouble for the weave room nor reduce loom efficiency?

4. Do they perfectly size any fiber you want to put through them, cotton or synthetic, spun or filament?

5. Do they run without breakdowns, 24 hours a day, turning out a steady stream of all the warps your weaving department needs?

If they do . . . *then they must be KIDDE-Johnsons!* If not, write us today for complete details of this world-famous warp sizer.

TRICOT AND RASCHEL MACHINES • TRICOT WARPERS • HORIZONTAL WARPERS
BEAMERS • CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS

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Highly recommended for their greater cleanliness, superior uniformity, stability of viscosity, and constant availability

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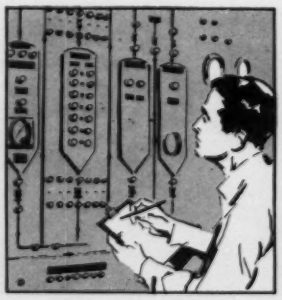
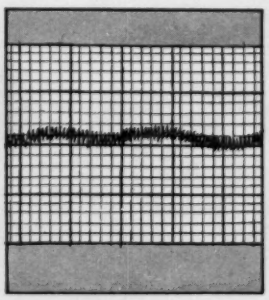
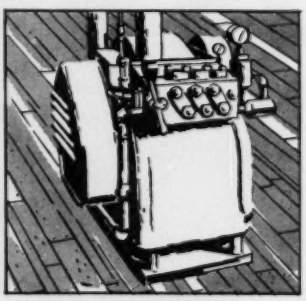


SUPERIOR UNIFORMITY



STABILITY OF VISCOSITY



IDEAL FOR HOMOGENIZERS

Globe® brand corn starch—This starch is ideal for warp sizing carded or combed yarns where a thick boiling starch is advantageous or for use in homogenizers. Globe Pearl Corn Starch produces strong films, reducing breaks on the slasher and loom.

Eagle® brand corn starch—This thin boiling starch is popular for warp sizing carded and combed yarns. Available in all fluidities which produce viscosities required to maintain correct size concentrations for best weaving.

Hercules brand corn starches—Oxidized starches are used in a wide variety of sizing applications. They produce a smooth but tough, clear film.

Globe® Gum has been popular for many years for warp sizing spun rayon. It has the superior qualities recommended for easy de-sizing.

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Globe Gum and Dextrines fill many finishing requirements. They are versatile and are in increased demand because of their application ease, and full compatibility with other size ingredients.

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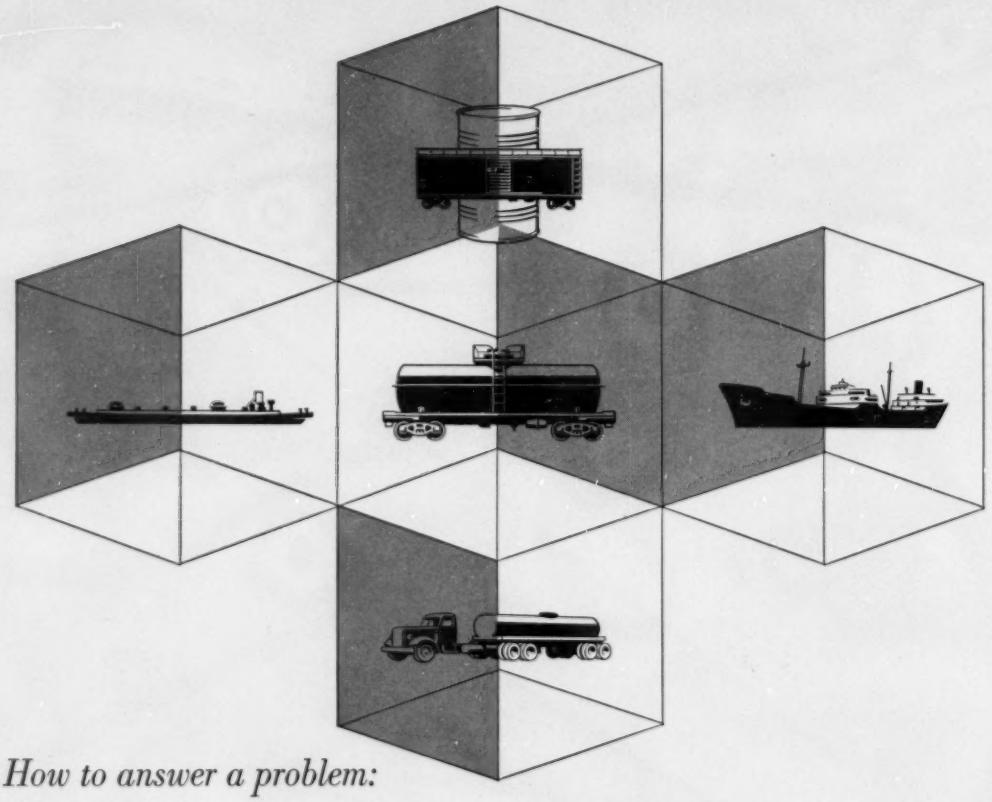

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Dow's Alkali Sales Department will gladly look into the economics of *your* caustic use . . . and may well be able to point out surprising *savings*. So many services are yours—*dependably* yours—when you deal with Dow. THE DOW CHEMICAL COMPANY, Dept. AL 360F, Midland, Michigan.

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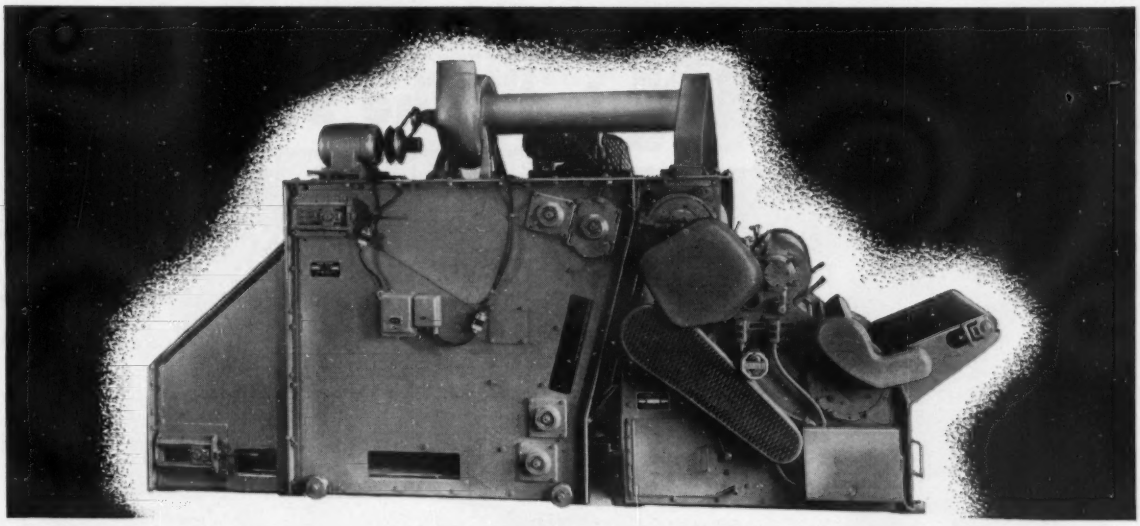

FOUR YEARS OF ACTUAL MILL PERFORMANCE DEVELOPED THE

NEW, IMPROVED MODEL 40B

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NEW — **ENLARGED HOPPER** . . . full 50-cubic foot capacity.

NEW — **FLOOR APRON** gives even pressure of fiber on elevating apron. Speed readily adjustable.

NEW — **STRIPPER APRON** returns excess fibers to rear of hopper. No Feeler Plate or Start-Stop actions.

NEW — **ROTARY CONDENSER SCREEN BOX.**

IMPROVED — **SELECTIVE OUTPUT CONTROL** . . . unaffected by wide range in hopper level.

NEW USES — **BLENDING AND BLENDING LINES.**

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COMPLETELY NEW — **DESIGN AND CONSTRUCTION** . . . same principles and functions.

IMPROVED — **PERFORMANCE** . . . product and output efficiency.

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NEW — **DOUBLE DRIVE ROTARY CONDENSER** . . . interchangeable with Feeder Condenser . . . minimum spares needed.

NEW — **AIR CHAMBER** design for improved web uniformity. Large accessible clean-outs.

Rando-Feeders and Rando-Webbers have produced thousands of yards of random webs in around-the-clock production. Four years of proven performance. The same basic design today but new features . . . new versatility . . . improved performance. Available in 3 sizes: 40", 60" and 84". Inquiries are invited. Bulletin available.

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Established to provide prompt service and quick delivery of Whitin Engineered Repair Parts to Southern Mills, the large, modern, fully equipped Charlotte Plant of the Whitin Machine Works offers every Southern mill man the opportunity to secure the repair parts he needs, many of them directly from stock.

A large stock supply of the following are available:

BOLSTERS—spinning and roving

GEARS—especially for spinning and roving

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STEEL ROLLS—available on loan while mill rolls being changed to double screw necks.

Flyers available on loan during repair period.

Many other services available including:

SPINDLES—repairs of all kinds, new

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where **High Quality** is required
the **STROBOTAC** is a **MUST**

You can profit from the experience of thousands of leading textile mills by using G-R Stroboscopes. Improving the quality of output, reducing the cost of production, and having fewer "seconds" are some of the important money-saving benefits obtained daily with the STROBOTAC.

Universally adapted to cotton, woolen and synthetic mill operation, a few of its many applications include:

In the spinning room: keeping spindles at correct speed; checking slack or dirty bands or tapes, spindles that need oiling, crooked idlers; chokes in idlers, under spindles, on bolster, on spindle clutch, in bobbins; spindles out of plumb or crooked or worn; crooked bobbins or bobbins that fit spindles inaccurately

Ring Travellers: checking for misalignment and worn travellers, and observing traveller action

Training Operators: observing in s-l-o-w motion the exact operation of all types of machines to train operators to adjust for best results, and to shoot trouble with a minimum of lost time

For Complete Information *write for the* **STROBOSCOPE BULLETIN**

Type 631-BL
STROBOTAC: $150

Direct-Reading Calibration:
600 to 14,400 rpm

"Stop" or s-l-o-w motion
Range: 60 to 100,000 rpm

Operates from any
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plus inbuilt quality

After running many tests under actual mill conditions, using several possible designs of the SG-1 Bobbin, we now know that this ultimate design of the

US SG-1 GWALTNEY wooden bobbin

fulfils every requirement for the satisfactory spinning of yarns on Gwaltney frames.

Let's take a good look at these outstanding advantages

BETTER RUNNING	Tapered wall accounts for this; also for smoother "take-off" at spooler.
LIGHTER WEIGHT	1½ oz. less than straight wall bobbin.
STRONGER	The smaller top bore retains correct wall thickness.
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SELECTED STOCK	meets the exacting SG-1 requirements.
CORRECT FINISH	assures freedom from trouble (inside and out!)

We would appreciate an opportunity to demonstrate the merits of this bobbin to you.

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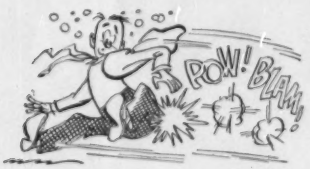
News in Brief

Suit Charges Fabric Exploded. J. C. Penney Co. is defendant in a $22,500-plus suit filed in Delhi, Calif., which charges that a pair of overalls exploded and "suddenly burst into flame" while being worn. Plaintiff alleges that the



conflagration was caused by "defective use of materials or chemicals in manufacture." Manufacturer of the overalls (unidentified) is named as a John Doe defendant.

Governors to Wear Ramie. Every southern governor who attended the last southern governor's conference received enough cloth of ramie blends to have for himself a suit and sports jacket, and for his wife a dress. The fabric, loomed by Swift Manufacturing Co., was 25% ramie, 25% viscose, and 50% cotton. The ramie, grown in Florida and woven in Georgia, was offered as a promising southern product.

Maid De Lois Visits the SRRL

A cotton bandage that conforms to body contours is shown being held by Miss De Lois Faulkner, the 1955 Maid of Cotton, during her recent visit to the Southern Regional Research Laboratory at New Orleans, La.

C. F. Goldthwait of the Laboratory staff, inventor of the bandage, is demonstrating the moderate elasticity of the bandage which permits it to stretch or give while being applied.

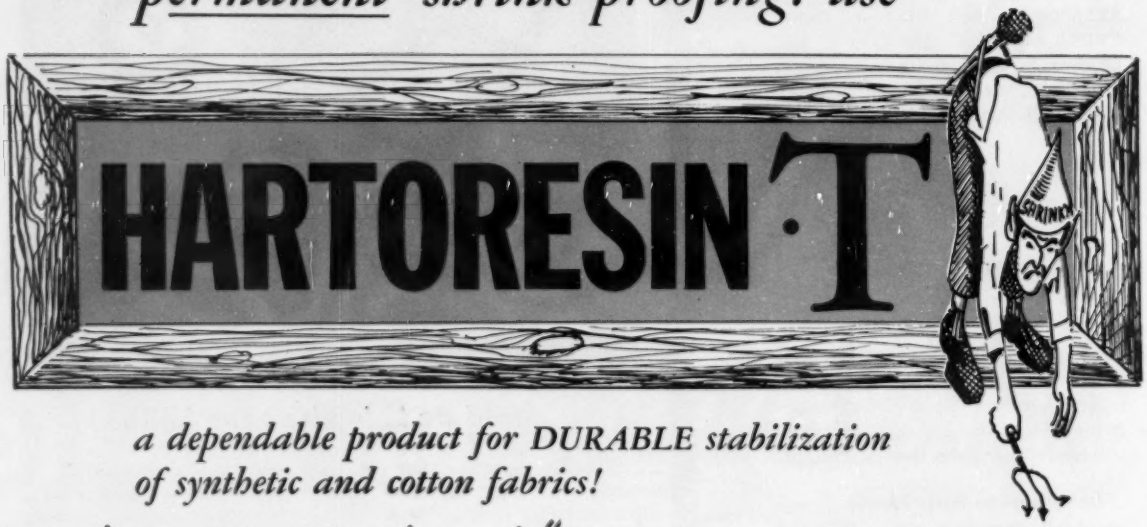
The elasticity, together with a non-slip surface texture, makes the bandage cling together rather than tend to loosen in place. These new characteristics make the bandage especially suitable for bandaging joints such as elbows, knees, and fingers where a close-fitting bandage permitting normal body movement is desired.

New Rules for Hosiery Learners. New general regulations covering the employment of learners at subminimum wage rates under the Wage-Hour Law have been promulgated by the Department of Labor and are now effective, replacing the original regulations issued in 1940. The hosiery learner rules which went into effect in May, 1954 (see TEXTILE INDUSTRIES for June, 1954, p. 89), are simplified by deleting any rules now contained in the basic regulations. Included in the new regulations is a clarification of the term "experienced worker available for employment," a bone of contention during the past year. Such a worker is now construed to be one who actually makes himself available for employment, rather than one who has merely expressed a willingness to accept employment.

Permanent Pleats for Worsteds? Worsted fabrics with a permanent pleat can be produced by methods already available, according to Prof. J. B. Speakman, head of the department of textile industries, Leeds University. Prof. Speakman's contention is that methods developed at Leeds in 1936 for imparting a permanent set to wool will produce pleats in worsted fabrics which will be just as permanent as those in wool-synthetic blends. The results of wool research just aren't being fully utilized, according to Prof. Speakman. The setting methods developed at Leeds can be used with

Avoid this Complaint

for practical, profitable, permanent shrink proofing! use



a dependable product for DURABLE stabilization of synthetic and cotton fabrics!

"Get these Plus Values!"

- ★ crush resistance without loading!
- ★ a "hand" with customer appeal!
- ★ outstanding durability to laundering!
- ★ no loss of strength from chlorine bleaching!
- ★ easy to use!
- ★ most textile men find — with HARTORESIN T — the expensive, time-consuming after-wash is no longer necessary!

HARTORESIN T — a genuinely outstanding development — provides lasting and complete shrink-and-crush-proofness for synthetic and cotton textile fabrics. A fabric stabilized for the life of its use is now a *reality!*

"Get to the HART of shrink-control — get HARTORESIN T!"

Save yourself time, worry, and money! Write, wire, or phone now for a sample. Proof is in performance. Top technical service and prompt delivery are assured.

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HART PRODUCTS CORPORATION

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Works and Laboratories: Jersey City, N. J.

Hart Products Company of Canada, Ltd., Guelph, Ontario

equal success to fix napped finishes on heavy overcoatings, he added.

Chemical Progress Week. The week of May 16-21 has been designated "Chemical Progress Week." Sponsored by the Manufacturing Chemists Association, the

observance is designed to focus attention on the many and varied contributions made by the American chemical industry to our way of living.

AATCC News. A special new committee of the Executive Council on Research of the American Association of Textile Chemists and Colorists has been appointed to collect, coordinate, and distribute available information on studies of textiles in their end uses, so that present and future AATCC tests can be relied on to reflect end-use performance. . . . A tentative test for determining colorfastness to alternate light exposure and washing has been developed by the Association's committee on colorfastness to washing. Procedure involves exposing specimen to 20 standard fading hours in Fade-Ometer, then subjecting it to accelerated washfastness test 3A.

News in Brief

Spinning Test Results. The annual "Summary of Fiber and Spinning Test Results for Some Varieties of Cotton Grown by Selected Cotton Improvement Groups" is now available for the crop of 1954 from the Standards and Testing Branch, Cotton Division, Agricultural Marketing Service, USDA, Washington 25, D. C.

Celanese to Produce New Industrial Fiber. Celanese Corp. plans to begin full-scale commercial pro-

MERCHANDISING NOTES

Amicale Trading Co., Inc., expects more cashmere goods to be sold in 1955 than in any previous year. The cashmere sweater once formed the bulk of products made from this luxury fiber, but cashmere has now found its way into scarves and mufflers, hosiery, suits, and coats.

William Carter Co. will emphasize the "fashion under fashion" approach in its advertising again this year. Carter's four-color ads

for men's underwear in *The New Yorker* and *Time* will not show underwear; fashionably dressed men will place emphasis on the idea that men's underwear is the fashion for under-fashion.

Cone Mills Inc. has introduced "Kadeena Cloth," a highly mercerized, ribbed winter cotton, woven in a snag-resistant novelty cord pattern. The fabric is offered for use in men's, women's, and children's wear, and in the decorative field. . . . A new corduroy wale treatment is presented in "Clevecord," in which a thick-and-thin rib technique highlights coloring and gives depth and luster.

Courtaulds (Canada) Ltd., through its general sales manager, Peter W. Webb, has called for the creation of "a cooperative group of yarn, fabric, and garment designers burning with the desire to create something purely Canadian." He urges financial support from the Canadian textile industry and garment manufacturers and from Provincial and Federal governments to establish Canada as a style center for winter and sports clothing.

Du Pont has retained Dorothy Liebes as a consultant to the home furnishings merchandising section of its Textile Fibers Department. . . . The company states that man-made fibers have been featured prominently in recent creations by top-drawer designers Dior, Balenciaga, de Givenchy, Patou, and Balmain.

Heberlein Patent Corp. has warned retail stores that the new women's sheer stretch nylon stockings must not be described as "Helanca." No Helanca yarn is used in these stockings—the 15-denier yarn used is monofilament rather than multi-filament.

M. Lowenstein & Sons, Inc., has completed and occupied its new Textile Center at 1430 Broadway, New York. The building houses the company's general and sales offices, design department, and showrooms.

Primary Textiles Institute has announced that "steps taken to establish standard labeling practices for textiles sold in Canada have the full support of Canadian textile manufacturers." The Canadian industry wants fiber-content labeling first; "country of origin" labeling may come later.

Roosevelt Mills, Inc., has obtained a patent (USP 2,702,463) on a thermal insulation knitted fabric and its method of manufacture, and plans to merchandise it under the trade name "Aero-Mille." The fabric consists of two layers, knitted simultaneously, connected by yarns with different shrinking properties from those of the basic fabric layers. This produces a puckered or wrinkled fabric with air entrapped between the layers.

United Merchants and Manufacturers' Old Fort Finishing Plant division is making an unconditional guarantee to the consumer to replace any rayon garment treated by its Fortset process which shrinks out of fit.

Weatherbee Coats, Inc., is promoting a 50-50 Dacron-Egyptian cotton washable raincoat, fully lined with nylon.

NEVER

a carpet core like this!

DURO
SUPER
CARPET TUBES

FAST DELIVERY!

★ *Stronger!*
★ *Lighter!*
★ *Economical!*

. . . here it is . . . . a stronger, lighter carpet core—proven superior to any yet developed! Exceptional breaking strength—made to take abuse. Immediate delivery from stock on all standard 9, 12 and 15 foot lengths, in standard diameters. Also available in longer lengths and in any diameter. Supplied in plain or solid colored stock with printed, decorative wrap optional. Samples rushed to you upon request!

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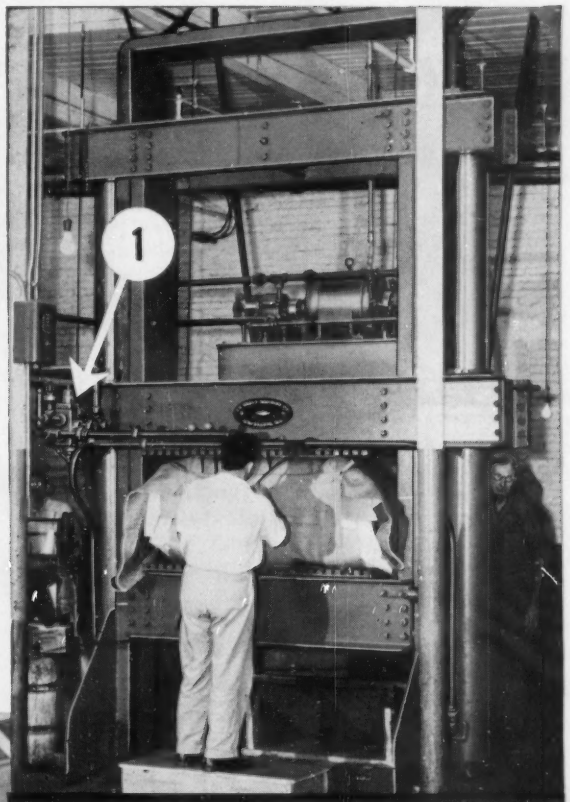
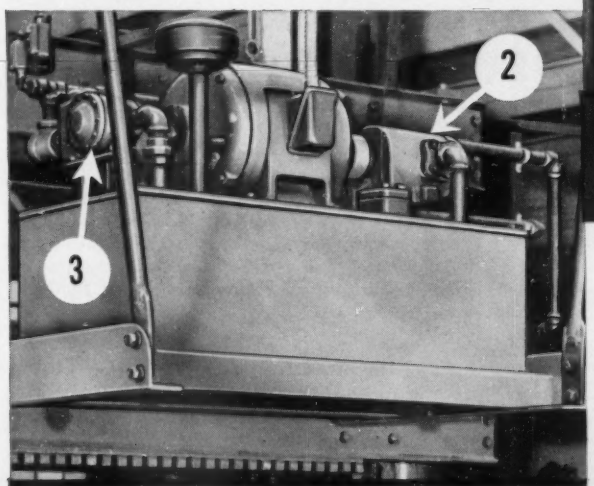
HYDRAULIC EQUIPMENT helps produce *BETTER* BALES at *LOWER* COST



Beaty One-Floor Draw Bar Hydraulic Presses need no pit, are self-contained, complete more bales per hour, require less electric power, and the bales contain greater yardage of cloth. VICKERS Hydraulic Equipment is used exclusively. Press operation is conveniently controlled by hand lever on VICKERS 4-Way Valve (No. 1).



VICKERS Custom-Built Hydraulic Power Unit was designed and built to meet the particular needs of this press. A double-end motor drives two standard VICKERS Vane Type Pumps (No. 2 a small-volume pump for maximum operating pressure of 2000 psi; No. 3 a large-volume pump for maximum operating pressure of 1000 psi.) Both pumps deliver oil for the exceptionally fast closing of the press; during bale compression at 2000 psi, pump No. 3 is automatically unloaded to reduce power requirement to a minimum.

The advantages of using VICKERS Hydraulic Equipment as illustrated here by the Beaty Press are representative of what has been accomplished on many types of Textile machinery.

In the Textile industry, the use of Vickers Hydraulics is growing rapidly because of its adaptability, efficiency and economy. It offers exceptional advantages in simplification of design, ease of installation, accuracy and flexibility of control, and low maintenance. Automatic overload protection and inherent self-lubrication are additional highly desirable characteristics.

For further information about the benefit of Vickers Hydraulics ask our nearest Sales Application Engineering Office for a copy of new Textile Bulletin 54-66.

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ENGINEERS AND BUILDERS OF OIL HYDRAULIC EQUIPMENT SINCE 1921

ARE YOU ONE OF THESE MILL EXECUTIVES . . . ?

SEEKING A WAY TO MAKE BETTER YARN AT LOWER COST

SACO-LOWELL

HAD THE ANSWER FOR OVER 60 MILLS — THEY HAVE IT FOR YOURS TOO!

GWALTNEY SPINNING

MAKES YOUR YARN QUALITY EVEN BETTER — LOWERS YOUR COSTS, INCREASES YOUR PROFITS.

Gwaltney Installation at Werthen Bag Corp.

The day of small rings, short bobbins and small package spinning is over — to meet competition it is essential that mills install equipment that will spin large packages and prepare filling by rewinding.

Saco-Lowell Gwaltney Spinning Frames are the answer to better quality and higher profits. The more than 60 mills with Gwaltney installations are now leading the way to new horizons profit-wise from this equipment — the only really new development in spinning machinery for over 100 years.

Gwaltney Spinning has a place in your mill — a Saco-Lowell engineer will be glad to give you full details and arrange for a demonstration. Call or write to your nearest Saco-Lowell Office.

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duction before the end of 1955 of a new "super-strong" industrial fiber, Fortisan-36. The new fiber, chemically akin to Fortisan, is now available in sample quantities from present pilot-plant operations. Initial output will be 800-denier continuous filament; heavier denier ranges may be produced later. The fiber's chief properties are high strength, low elongation, and dimensional stability.

Synopses of Chemical Patents Available. A new weekly magazine, *Chemical Patgrams,* devotes a separate page to a digest in diagram form of each of the approximately 100 chemical process and product patents issued each week. Further information and sample copy available from *Chemical Patgrams,* Box 5559, Washington 16, D. C.

Bright Yarn for Marquisettes. Bright yarn should be used for Dacron marquisette curtains, says Du Pont's Textile Fibers Department, answering industry inquiries. Three types of Dacron are available: bright, semidull, and dull.

Guide for Hiring the Physically Handicapped. The National Association of Manufacturers calls for "action on the broadest possible front" to eliminate remaining barriers to employment of the physically handicapped, in a new "Guide for Employers in Hiring the Physically Handicapped." The 32-page booklet has the announced intention of providing guidance in employing and placing the handicapped individual in productive work. Copies of the guide are available from the NAM at 2 East 48th St., New York 17, N. Y. Price: 50 cents each.

Compulsory Air Conditioning. A bill to require air conditioning in all textile plants employing more than 20 people has been reintroduced in the South Carolina General Assembly. Mills would have to maintain a temperature not higher than 90 F and RH not above 85 per cent. Opposing the bill (which is given little chance of enactment), John K. Cauthen, executive vice-president of the S. C. Textile Manufacturers Assn., contends that there has never been any real protest among textile employees about hot-weather working conditions, and that all sorts of damage to textiles in production would result, since certain temperature and humidity conditions must be met in textile processing.

Wool Promotion Program Approved. Secretary of Agriculture Benson has announced an agreement with the American Sheep Producers Council providing for advertising, promotional, and related market development activities, subject to approval of sheep

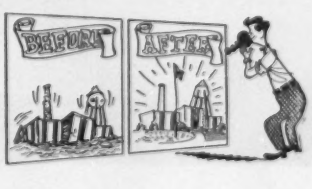
and wool producers in a referendum to be held this summer. The agreement provides for deductions of not to exceed 1 cent per pound from the incentive payments for shorn wool and a comparable rate of deduction on lambs and yearlings marketed unshorn.

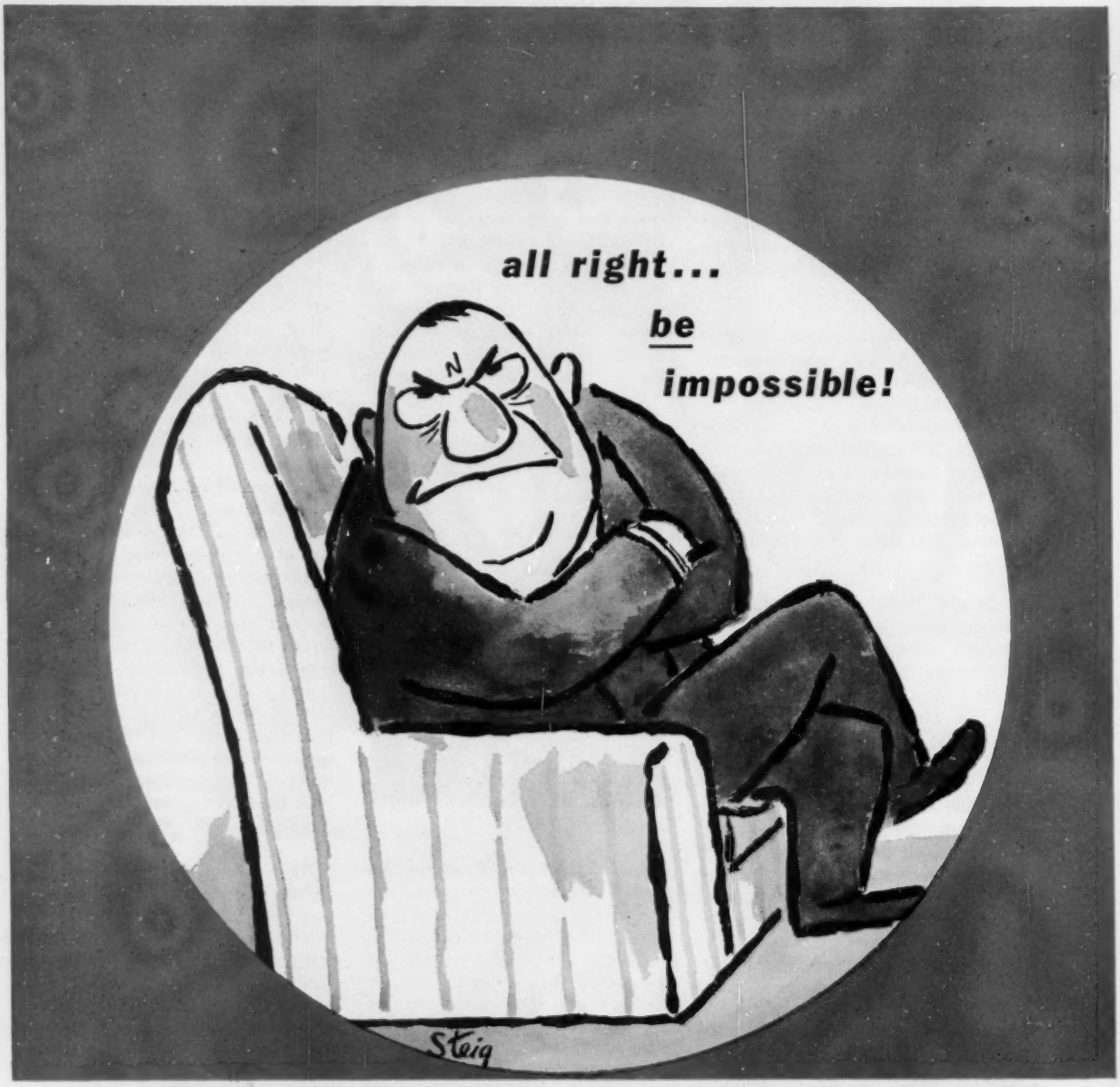
ACMI Fights "Two-Price" Cotton System. In testimony before a Senate Agricultural subcommittee, Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute, said that the ACMI would "look with fear and trembling" on a two-price system of marketing cotton. A two-price system would be one in which cotton producers would be guaranteed one price for cotton needed for domestic consumption, and any surplus would be sold abroad at the world price. According to Mr. Jackson, any system which would let foreign mills have American cotton at a price lower than that paid by American mills would sharply increase the present competitive disadvantage of the domestic cotton textile industry. No bill to establish such a system has been introduced, but the subcommittee, headed by Sen. Eastland (D., Miss.), is exploring possible solutions to the problem of farm surpluses, and the two-price system is one of the proposed solutions. [Previous discussion: TEXTILE INDUSTRIES for Dec., 1953, p. 103.]

News in Brief

New Postal Service. The Post Office Department is initiating a new "certified mail" service to provide proof of mailing without the usual cost of registration. A charge of 15 cents will be made for providing a certificate of mailing or for having the carrier take a delivery receipt, as compared to the present minimum charge of 30 cents for registered mail.

Methods Improvement Contest. Entries are now being accepted for the Fifth Annual Methods Improvement Competition sponsored by the Industrial Management Society. Industrial plants and companies are invited to submit 16-mm motion picture films show-





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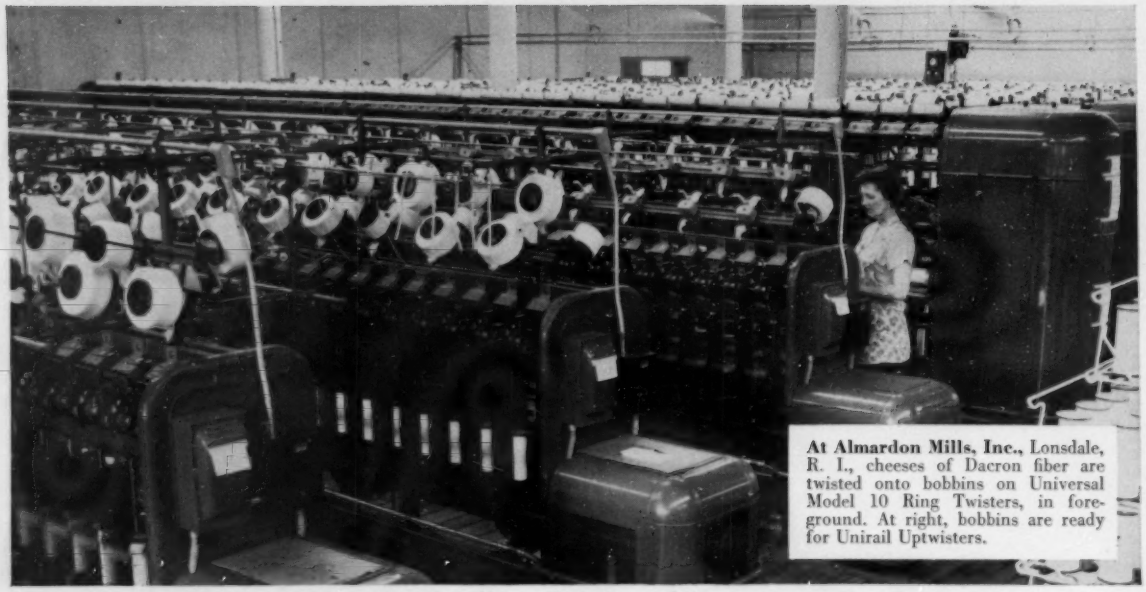

At Almardon Mills, Inc., Lonsdale, R. I., cheeses of Dacron fiber are twisted onto bobbins on Universal Model 10 Ring Twisters, in foreground. At right, bobbins are ready for Unirail Uptwisters.

Almardon Mills Solves the Dacron-Twisting Problem

Increases production of top-quality yarn to a new high — cuts costs to a new low — with Universal equipment.

Supplied with zero twist, and requiring a high final twist, Dacron has introduced new throwing problems to mills processing this new fiber.

Almardon Mills was no exception. Using its previous equipment, this well known producer of fine quality Dacron piques and lenos was redrawing 70 denier Dacron from cheeses to bobbins, then throwing 20 turns of twist on 12 ounce package uptwisters. Uptwisting speed was slow, the filaments opened, and breakage was high. Flyers were necessary, and due to the abrasive action of Dacron, had to be replaced at every doff. And, if relaxed yarn was required, the added cost of rewinding was necessary.

Here, in the words of Chester H. Boyce, Almardon Vice President, is how this mill solved the Dacron problem:

"We worked out a process with Universal, combining their Model 10 Ring Twisters with their new Unirail® Headless Package Uptwisters. This changed the picture completely. With the Model 10 creels we can insert two turns of twist direct from the cheeses without redrawing. High speed uptwisting is then possible without separation of the filaments. And the Model 10 bobbins are the ideal supply for Unirail Uptwisters.

"Our Unirail Uptwisters put in remaining 18 turns at 14,000 r.p.m. without flyers. And right there we've cut down labor costs and boosted production. No more flyer replacements, and breakage is practically nil.

"Now, with our Universal combination, we're producing big pound-and-a-half Dacron packages — headless packages with *controlled relaxation of the yarn* without rewinding. In our experience, this is the best package you can get for delivery to warping and quilling."

If you are one of the many mills now working with Dacron, why not investigate how this Universal system can improve your own production picture? For helpful information on this — or on any other twisting or winding application, see your Universal representative.

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BOSTON, PHILADELPHIA, UTICA, CHARLOTTE, ATLANTA, LOS ANGELES; MONTREAL, HAMILTON, CANADA; MANCHESTER, ENGLAND; PARIS, FRANCE, BASLE, SWITZERLAND

Agents in every principal textile center throughout the world
Winding and Twisting Machinery for Natural and Synthetic Yarns

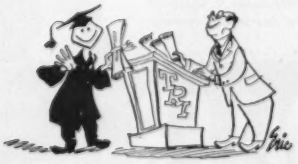
ing "before" and "after" phases of methods improvements made in manufacturing, processing, or office operations. Details are available from the Society office at 35 East Wacker Drive, Chicago 1, Ill.

Research on Cotton Bale Coverings Continues. Newest possibilities in the search for a better covering for cotton bales are nonwoven fabrics. Test bales were re-

cently covered with these fabrics in an Arizona experiment. Other coverings which have undergone tests include polyethylene, paper, and burlap laminates.

New Safety Training Aids. Three new "safetygraphs" on first aid are available from the National Safety Council. They cover "How to Control Bleeding," "First Aid Treatment for Burns," and "Transportation for Injured Persons." The safetygraphs are intended for the training of small groups, and consist of 12 spiral-bound pages, 18 x 24 inches, inserted in a brown leatherette portfolio. Further information and prices are available from the Council, at 425 North Michigan Ave., Chicago 11, Ill.

TRI To Give MS Degree. The Textile Research Institute will attempt to close the gap between the BS degree granted at most textile colleges and the PhD granted at Princeton by making available a new program leading to the MS degree. Course of study will be for

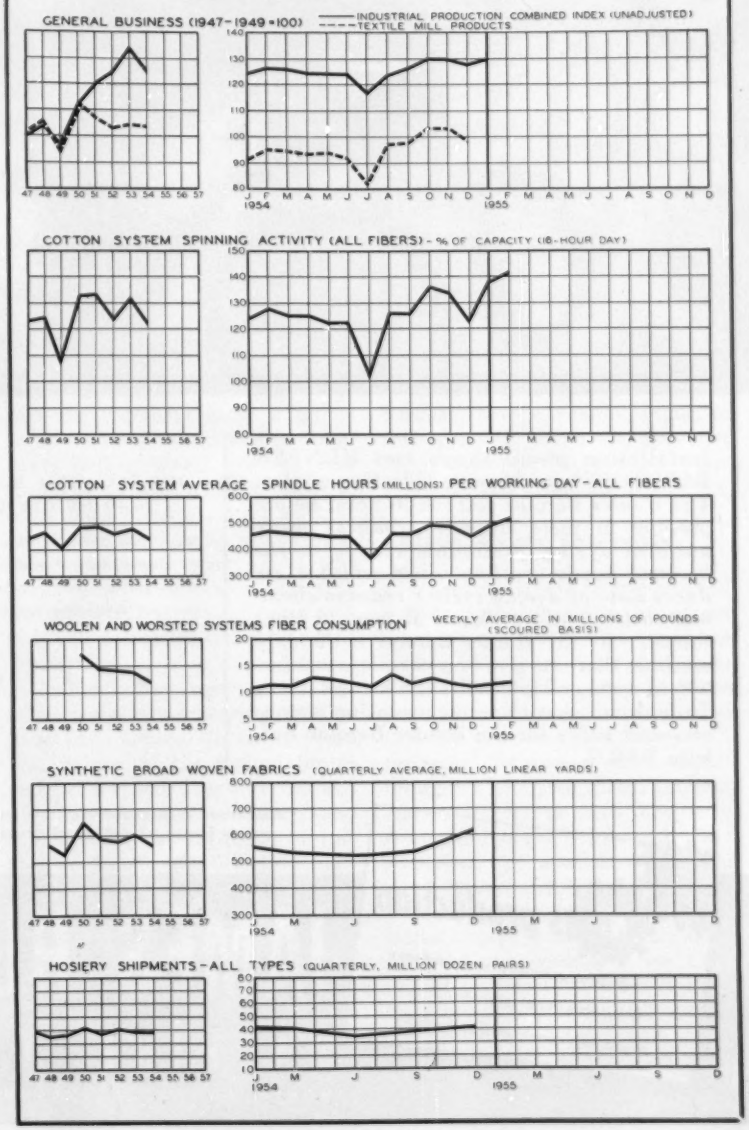


two years, with the possibility that successful candidates will continue on to the PhD degree. The MS program will be in chemistry and engineering, with standards set by the TRI staff in consultation with Princeton University [MS degrees in textiles are granted at the present time by Clemson, Georgia Tech, Institute of Textile Technology, Lowell, M.I.T., and N. C. State College.—Eds.]

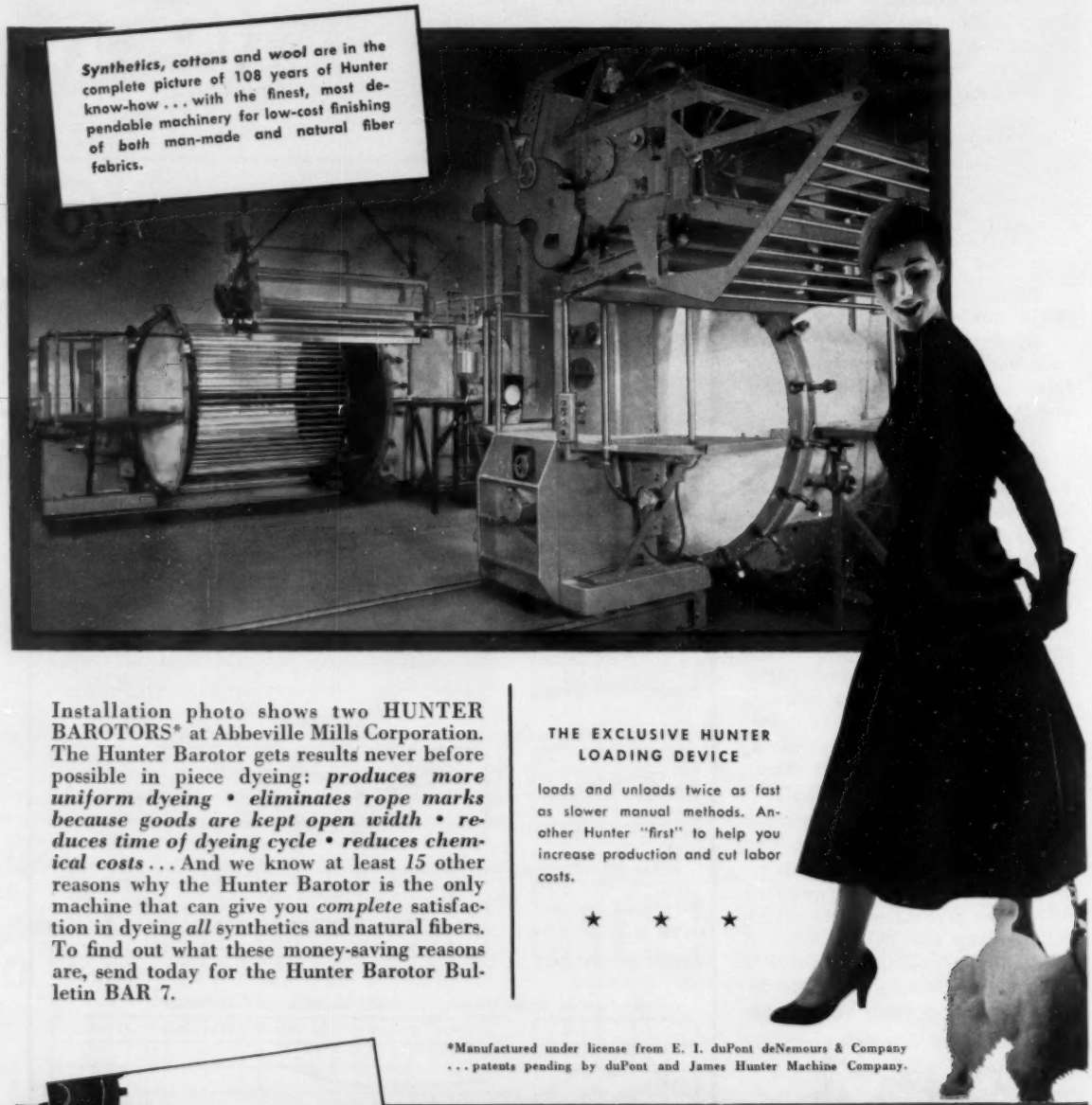
Czech Machinery Improvements. According to a West German newspaper, recent textile machinery developments in Czechoslovakia include a pneumatic loom, with the shuttle propelled by air pressure; and a printing machine incorporating a number of small press rollers against each main roller, and with a claimed speed of 110 ypm.

Textile Industry Activity Charts

Source of information: Bureau of the Census, U. S. Department of Commerce; National Association of Hosiery Manufacturers.


GENERAL BUSINESS (1947-1949=100)
INDUSTRIAL PRODUCTION COMBINED INDEX (UNADJUSTED)
TEXTILE MILL PRODUCTS
COTTON SYSTEM SPINNING ACTIVITY (ALL FIBERS) - % OF CAPACITY (18-HOUR DAY)
COTTON SYSTEM AVERAGE SPINDLE HOURS (MILLIONS) PER WORKING DAY - ALL FIBERS
WOOLEN AND WORSTED SYSTEMS FIBER CONSUMPTION
WEEKLY AVERAGE IN MILLIONS OF POUNDS (SCOURED BASIS)
SYNTHETIC BROAD WOVEN FABRICS (QUARTERLY AVERAGE, MILLION LINEAR YARDS)
HOSIERY SHIPMENTS - ALL TYPES (QUARTERLY, MILLION DOZEN PAIRS)
1954
1955

HUNTER *equipment assures Efficient...Economical piece dyeing at* ABBEVILLE!


Synthetics, cottons and wool are in the complete picture of 108 years of Hunter know-how . . . with the finest, most dependable machinery for low-cost finishing of both man-made and natural fiber fabrics.

Installation photo shows two HUNTER BAROTORS* at Abbeville Mills Corporation. The Hunter Barotor gets results never before possible in piece dyeing: ***produces more uniform dyeing • eliminates rope marks because goods are kept open width • reduces time of dyeing cycle • reduces chemical costs***... And we know at least *15* other reasons why the Hunter Barotor is the only machine that can give you *complete* satisfaction in dyeing *all* synthetics and natural fibers. To find out what these money-saving reasons are, send today for the Hunter Barotor Bulletin BAR 7.

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AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

IT SEEMS likely at this writing that by the time this appears in print the United States Senate will have decided what is going to be done about the tariff question. It also seems possible that the administrative negotiations which are going on at Geneva, Switzerland, will have been decided, or at least the ticket will pretty well have been written by that time.

Nevertheless, as spring moves along into the summer of 1955, few people can be found who feel that the solutions worked out in the Senate and at Geneva will be anything more than temporary answers to a major and a most difficult problem.

For our part, of course, we are mainly concerned with the textile industry, but none of us is so shortsighted as to forget the future welfare and security of the American nation. We understand clearly and without any mental reservations that it will not profit us much to save the textile industry and lose the American free enterprise system, or to lose out in the game of international politics being played between the free world and the slave world.

Trade With Communist China?

One plan that has been advanced in some textile circles is that Japan should be encouraged to trade with Communist China, one of her natural and historical markets for textiles. The argument goes that the British have been trading with China for some time, and that we might as well let Japan do the same thing, at least as far as textiles are concerned, because textiles have never been considered in the same category with guns and tanks and planes.

"They say" that if Japan can sell textiles to the Chinese, the Chinese will be happier because they will have more clothes; the Japanese will be happy because they will have a ready-made market close at hand; the "one world" boys will be happy because this will help the Japanese economy; and, finally, the American textile industry will be happy because Japanese goods will be going somewhere else other than into the United States.

We view this argument with somewhat mixed emotions. We sold the Japanese quite a bit of scrap iron in the last two or three years before World War II, and many of us saw quite a bit of it come back to us at Pearl Harbor, at Guadalcanal, and at Tarawa. The unfortunate part about this exchange of scrap metal was that we shipped it to the Japanese cold but when it came back to us it was hot.

Granted that textiles do not come in the same category. But we have been saying for many years that as far as the United States was concerned, textiles ranked next to steel as a war industry, and if this is true would it not be just as true for the Chinese Communist?

As each of us grows older, we realize that everything is not either black or white, and that there are many gray zones; but, nevertheless, we find it hard to forsake a feeling that we have had for a long time. This feeling is that you cannot do business with the enemy, or the potential enemy, without hurting both yourself and your principles.

It seems to us that it is quibbling to say that it is not the United States which would be trading with Communist China, but rather Japan. Japan was conquered, subjugated, and otherwise defeated after one of the most vicious sneak attacks in the history of modern warfare, and she is not going to do any trading with Communist China without our permission and sanction in advance.

Nevertheless, in spite of these comments we are considerably in doubt as to whether or not the United States should permit Japan to sell textiles to Communist China because there are many angles to this question which we have not even attempted to explore here. What do you think about it?

Cotton Farm Interests

We do not know how it worked out in actual practice but from what we could read about it in the papers, the tour which American Cotton Manufacturers Institute ran at Charlotte recently sounded like an excellent idea. You will probably remember that ACMI brought a group of cotton farmers and their wives into Charlotte from a number of cotton producing states—as far west as California, we believe—and took them on a tour of textile mills. The event lasted two or three days, and from some of the comments we have picked up here and there it must have been quite an eye-opener for the people who raise cotton.

Most of them, as we understand the story, had never been inside a textile mill before and had some

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Du Pont Dyes

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

rather strange ideas, no doubt, about what happened to their lint after it left the gin. A cotton mill is a confusing enough place even for those who were brought up in the business, and it must have been especially confusing to these people who came from so far away from the mill areas. According to the papers, farmers were there from practically all the western and midwestern cotton growing states, as well as from Tennessee, the Carolinas, Georgia, and Alabama.

We have been thinking for a long time that here in the textile industry we have about the last vestiges of conservatism in this country. But the other day we got to thinking about it, and we decided that perhaps the last two conservative groups—and perhaps we are being unduly pessimistic in calling them "the last"—were the textile manufacturers and the farmers.

The reason that we single out textile management as opposed to management in other industries is because we have about the most competitive industry in the country, and that sets us just a little bit apart from everybody else. For example, you probably remember reading a couple of months ago the testimony of someone from General Motors who was appearing before Senator Fulbright's committee on the stock exchange, and this gentleman from General Motors indicated that his company controlled something like 51% of the automobile industry. Can you imagine that in textiles?

At any rate, what we started out to talk about was the fact that textile management and the American farmer have more in common than we might have dreamed of heretofore. This tour which ACMI conducted in the Charlotte area must have been good for both groups because certainly it would have brought out this unity of interests.

The American cotton mill is without any doubt whatsoever the best customer of the American cotton farmer, and together the cotton farmer and the cotton mill can exert a powerful influence for good in Washington. To us, this

(Continued on page 209)

MAY

May 4-5—Spring meeting, **The Fiber Society,** Alabama Polytechnic Institute, School of Textile Technology, Auburn, Ala.

May 5—90th annual meeting **National Association of Wool Manufacturers,** Waldorf-Astoria Hotel, New York City.

May 7—Meeting **Piedmont Division STA,** Catawba Country Club, Hickory, N. C. 10:00 A.M.

May 12-14—Annual outing **Carolina Yarn Association.**

May 13—Meeting **Western New England Section AATCC,** Rapp's Restaurant, Shelton, Conn.

May 14—Meeting **South Central Section AATCC,** Hotel Patten, Chattanooga, Tenn.

May 16-20—Materials Handling Exposition, International Amphitheatre, Chicago, Ill.

May 17-20—40th annual conference, **Textile Institute,** London, England.

May 20—Meeting **Hudson-Mohawk Section AATCC,** Jack's Restaurant, Albany, N. Y. Ladies Night.

May 20—Meeting **Washington Section AATCC,** Washington, D. C.

May 20-21—Semi-annual convention **National Association of Woolen and Worsted Overseers,** Bancroft Hotel, Worcester, Mass.

May 20—Meeting **New York Section AATCC,** Kohler's Swiss Chalet, Rochelle Park, N. J.

May 20—Annual outing **Philadelphia Section AATCC,** Manufacturer's Golf & Country Club, Oreland, Pa.

JUNE

June 3—Meeting **Pacific Southwest Section AATCC,** Gourmet Resturant, Beverly Hills, Calif.

June 3-4—Annual outing **Southeastern Section AATCC.** Radium Springs, Ga.

June 9-11—Annual reunion **Alumni Assn. of Philadelphia Textile Institute** and commencement exercises.

June 10—Annual outing **Northern New England Section AATCC.**

June 10-11—Annual outing **Piedmont Section AATCC,** Mayview Manor, Blowing Rock, N. C.

June 11—Annual outing **Midwest Section AATCC,** Lake Lawn Lodge, Delavan, Wis.

June 16-18—Annual convention **Southern Textile Association,** Mayview Manor, Blowing Rock, N. C.

June 24—Annual outing **Niagara Frontier Section AATCC.**

June 25-July 10—International Textile Exhibition, Brussels, Belgium.

June 26-July 1—Annual meeting, **American Society for Testing Materials,** Chalfonte-Haddon Hall, Atlantic City, N. J.

June 27-29—International Congress of Scientific Research Applied to the Textile Industry, Brussels, Belgium.

AUGUST

Aug. 22-Sept. 9—International Wool Textile Research Conference, Sydney, Geelong, and Melbourne, Australia.

SEPTEMBER

Sept. 8-9—Fall meeting, **The Fiber Society,** Massachusetts Institute of Technology, Cambridge, Mass.

Sept. 20-21—The **Chemical Finishing Conference** sponsored by the National Cotton Council of America, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 22-25—National convention, **AATCC,** Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 29-30—Annual outing **Chattanooga Yarn Association,** Lookout Mountain Hotel, Chattanooga, Tenn.

Sept. 29-30—101st annual meeting of **National Association of Cotton Manufacturers** and 3rd annual meeting of **Northern Textile Association,** Wentworth-by-the-Sea, Portsmouth, N. H.

OCTOBER

Oct. 13-14—49th annual meeting **North Carolina Textile Manufacturers Association,** Carolina Hotel, Pinehurst, N. C.

Oct. 17-19—Fall meeting, **National Council for Textile Education,** The Larches, Hopedale, Mass. Hosts: American Textile Machinery Association.

Oct. 27-28—Annual convention, **The Quartermaster Association,** Conrad Hilton Hotel, Chicago, Ill.

Oct. 29—Fall meeting **Textile Operating Executives of Georgia,** Georgia Institute of Technology, Atlanta, Ga. Carding and Spinning 9:00 A.M.

A print of this illustration in black and white suitable for line reproduction for use in your advertising, available free on request.

A FACT: In 1953 the steady climb of 51-gauge equipment stopped, and then declined, as the Hosiery Industry swung to finer gauges and greater precision in full-fashioned knitting machinery. (Textile Machine Works, 1953 Statistical Survey.)

In the hosiery industry, the one unyielding force is obsolescence. Compare the production of your least efficient machinery with a "Reading 100" Full-Fashioned Knitting Machine—in courses per minute, dozens per hour, salability of fabric. The "Reading 100" is not only a fast multiple-section machine, but it is also a reliable one . . . speed without interruption. And with every Reading Machine you get the benefit of Textile Machine Works' engineering help, service and technical experience. Let us present the "Reading 100" story in your office, at your convenience. Write us today.

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The "READING 100"
Full Fashioned Knitting Machine

30 Sections 51, 60, 66 Gauge

ACMI believes in and will finance a

Public Information Program

6th annual meeting of American Cotton Manufacturers Institute

Staff Report

REALIZING the necessity for maintaining and supporting a vigorous and intelligent public relations program which will educate the public with regard to the vital importance of the textile industry, the American Cotton Manufacturers Institute has assumed full responsibility, direction of, and financing of the public education activities. Action came at the sixth annual meeting of the Institute in Palm Beach, Florida, April 2.

Heretofore the program has been conducted by the Textile Information Service and financed by voluntary subscription from textile mills, primarily those on the cotton system. But voluntary subscription financing often failed to reach the goal that is necessary to conduct a broad public information campaign compatible with the size and importance of the textile industry.

Voluntary subscription also placed the burden of financing on the few to the benefit of the many, and the total amount subscribed annually was subject to business conditions, personal opinion as to the benefit of the program at a particular time, and an incomplete understanding of what a public relations program does and can do.

The ACMI by unanimous vote agreed to revise its dues limitations to finance the public education program.

Quota for Japanese Imports. With imports of textiles from low-wage foreign countries threatening to undersell and undermine the American textile structure, Craig Smith of Avondale Mills and retiring president of ACMI, suggested that imports from Japan and other low-wage countries be put on a quota basis. He felt that a foreign wage rate of one-tenth that in American textiles could not be equalized by a tariff.

A similar situation of Japanese textiles coming into this country prevailed in the 1930s. An unofficial delegation of American textile men visited Japan, and through friendly negotiation with the Japanese textile interests reached an agreement in 1937 which fixed the limits of the Japanese imports.

Although an agreement such as that made in 1937 is now regarded as illegal, Mr. Smith pointed out that it demonstrates the willingness of the Japanese to accept the principle of quota limitation wherever such a principle is sound.

Price Slashing. The age-old problem of the textile industry—overproduction followed by price cutting—would not occur, Mr. Smith said, if more mills were inclined to take their share of the volume decline indicated by market requirements. He suggested that in this respect mill management must re-examine the degree of blame which belongs to it.

Hits at Cotton Parity. Senator James O. Eastland (D. Miss.) was elevated from politician to statesman in the eyes of the audience when he called for a complete review of the cotton situation with regard to parity and restricted acreage so that America may regain its historic world cotton markets through expanded acreage and competitive price level.

With the continued increase in foreign production of cotton, he considers it absurd that the United States attempts to keep *world* cotton supplies in balance through production controls in *this* country.

On parity, he believes that any

New Officers of ACMI

President, A. K. Winget, American & Efird Mills, Inc., Mt. Holly, N. C.

First Vice-President, F. E. Grier, Abney Mills, Greenwood, S. C.

Second Vice-President, L. G. Hardman, Jr., Harmony Grove Mills, Inc. Commerce, Ga.

Executive Vice-President, Robert C. Jackson, Washington, D. C.

Secretary-Treasurer, F. Sadler Love, Charlotte, N. C.

farm policy which prevents a farm commodity from meeting its competition is false—whether that competition is foreign cotton or domestic synthetics.

"In the long run, (cotton) farmers can produce only so much as is consumed in this country or sold abroad," he said, and continued:

"Any farm program that is based solely on price with complete disregard of its attendant effect on consumption is doomed at the outset. Just as textile mills must, farmers must meet squarely their competition on three fronts: price, quality, and sales promotion.

"The price umbrella must be folded up. The present rigid floor under foreign cotton prices must be removed, until our burdensome surplus can be liquidated. We must serve notice on other cotton growing countries of the world that we are not going to sit idly by and let them take over any more of our foreign markets."

Highlight Quotes from ACMI Meeting

[Our] foreign aid programs must stop encouraging increased foreign production of cotton.—*Sen. James O. Eastland (D. Miss.).*

When the Congress passes a law requiring a minimum wage of 75 cents or more per hour and then passes another law permitting the reduction of an already low tariff, thereby forcing those required to pay the legal minimum to compete with foreign mills paying an average of 13.6 cents per hour, the combined effect of these two legislative acts is to ultimately transfer the ownership of our mills from this country to Japan, and to do to us exactly what the Fifth Amendment forbids being done to us.—*J. Craig Smith, Avondale Mills.*

How about this [textile] industry securing a larger share of the consumer dollar? Frankly, I doubt it. The rising standard of living has expressed itself primarily in consumers durable goods . . . expenditures for clothing and household textiles are now at about the lowest point in the 25 years for which data are available . . . consumers bought more, but at lower prices.—*T. V. Houser, chairman of the board, Sears, Roebuck & Company.*

All in all, the heightened competition among fibers has been a good thing for the consumer, a good thing for the country, a good thing for the textile industry and I might even say, a good thing for cotton.—*M. K. Horne, Jr., National Cotton Council of America.*

Tariff is no longer a political or sectional issue; it is idealogical and emotional. When emotion enters, we lose all sense of logic. Despite all the disadvantages American industry now operates under, we are told that to prevent Communism we must open our market to foreigners. In this way we can destroy our own industries.—*O. Glenn Saxon, professor of economics, Yale University.*

Hanes Dyes Knit

In a new type of continuous bleach range for tubular knit goods at P. H. Hanes Knitting Co., Winston-Salem, N. C., fluorescent white dye is applied before bleaching so that level dyed cloth is produced, reportedly a unique feature.

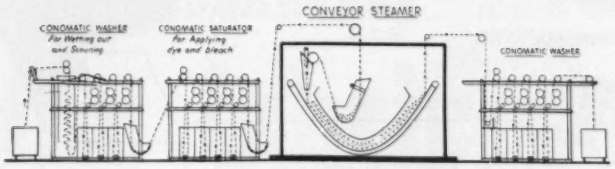
According to information received from Proctor & Schwartz, Inc., designer and builder of the machinery, capacity of the range is 30,000 pounds per 24-hour day or better at operating speeds of up to 150 ypm; cloth quality is top-notch in every respect, including whiteness, uniformity, shrinkage, absorbency, and hand; and total cost saving is considerable—it is expected that cost of the range will be amortized in less than three years.

Refer to the accompanying cross-section drawing to see path of the goods through the range. Note that there are four components. From left to right there are a Con-o-matic washer (hereafter referred to as No. 1), another Con-o-matic washer (No. 2) used for fluorescent white dyeing followed by peroxide saturation, a conveyor steamer, and finally another Con-o-matic washer (No. 3). Each of the washers has four compartments.

Grey goods enter No. 1 washer and pile up in the enclosed chute of the first compartment. Weight of pile of cloth forces lower portion of cloth under the liquor (containing a small amount of wetting agent and detergent) and accelerates wetting out. Other three compartments are used to scour and rinse cloth. Descending temperatures are used and water is counterflowed from the fourth to first compartment. Water entering this washer has already been used in the No. 3 or white washer and so is preheated.

In No. 2 washer fluorescent dye is applied in the first two compartments followed by peroxide saturation in the last two. To prevent build-up of impurities during dyeing, a small amount of dye liquor is removed from the second compartment by a method which utilizes the pumping action of cloth passing

Goods Before Bleaching



through a squeeze roll. This dye is not wasted—it is carried to No. 1 washer where cloth picks nearly all of it up. The full tinctorial power of the dyestuff is developed, and it has been found that the range can be stopped up to 20 minutes without damage to cloth or any shading due to prolonged immersion in the dye or bleach baths.

Upon entering the steamer where steam surrounds it at all times, the cloth passes first to a preheating scray where it is brought up to temperature (212 F or less), then through a plaiter and is piled onto a moving conveyor which is hung in a catenary curve. Conveyor advances slowly, requiring 1¼ hours to travel from loading to unloading points.

The cloth leaves the steamer and passes to the No. 3 washer, being finally delivered into a truck.

Throughout the entire range tension is kept to a minimum and squeeze roll pressures very low. Only three men are required to operate it.

Study of Textile Education Urged

A new educational program at the Textile Research Institute, Princeton, N. J., was outlined by Bertrand W. Hayward, chairman of the Institute's Education Committee, at their 25th annual meeting [see TI staff report of Convention in this issue, pages 127 and 129].

This program will be directed toward closing the gap between B.S. textile degrees and the Ph.D. at Princeton awarded for work under the supervision of the Textile Research Institute, according to Mr. Hayward. Plans are underway for T.R.I. to award an M.S. degree. This will make possible even closer cooperation between T.R.I. and the textile colleges and provide the industry with more men who have the advantage of a textile education and advanced scientific education, he pointed out.

Mr. Hayward, who is president of the Philadelphia Textile Institute and of the National Council for Textile Education, also emphatically urged that the textile industry act cooperatively to make a new national study of textile education.

"A very great need at the moment is a study similar to that conducted prior to 1934 by Frederick M. Feiker for The Textile Foundation and published in 1934 under the title "The Training of Men for the Textile Industry." If some group of textile corporations or some great textile association would finance a study of present day textile education, much value to industry and education would result. Furthermore, favorable publicity for the textile industry for such a study would alone be worth its cost," Mr. Hayward said.

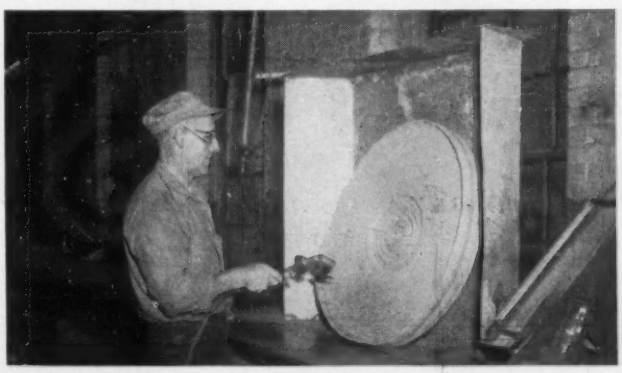
The industry was praised for its work for textile college education and research, but it was said that better results could be obtained with slightly greater support from the industry and much better publicizing of the textile industry's work in education and research to the general public.

All the textile colleges were commended by Mr. Hayward who said, "Any young man or woman interested in a textile college education has ten outstanding institutions from which to choose [see TI for April, 1955, pages 121-126]. Whichever one seems to fit each applicant's particular needs best will provide an opportunity for an excellent education. Textile colleges, properly used, could do much more to assure a reversal of the continuing decline in textile's share of the consumer dollar.

"The textile industry is too great to be given away because of lack of understanding in public opinion on the textile industry's work, problems and accomplishments," the speaker said.

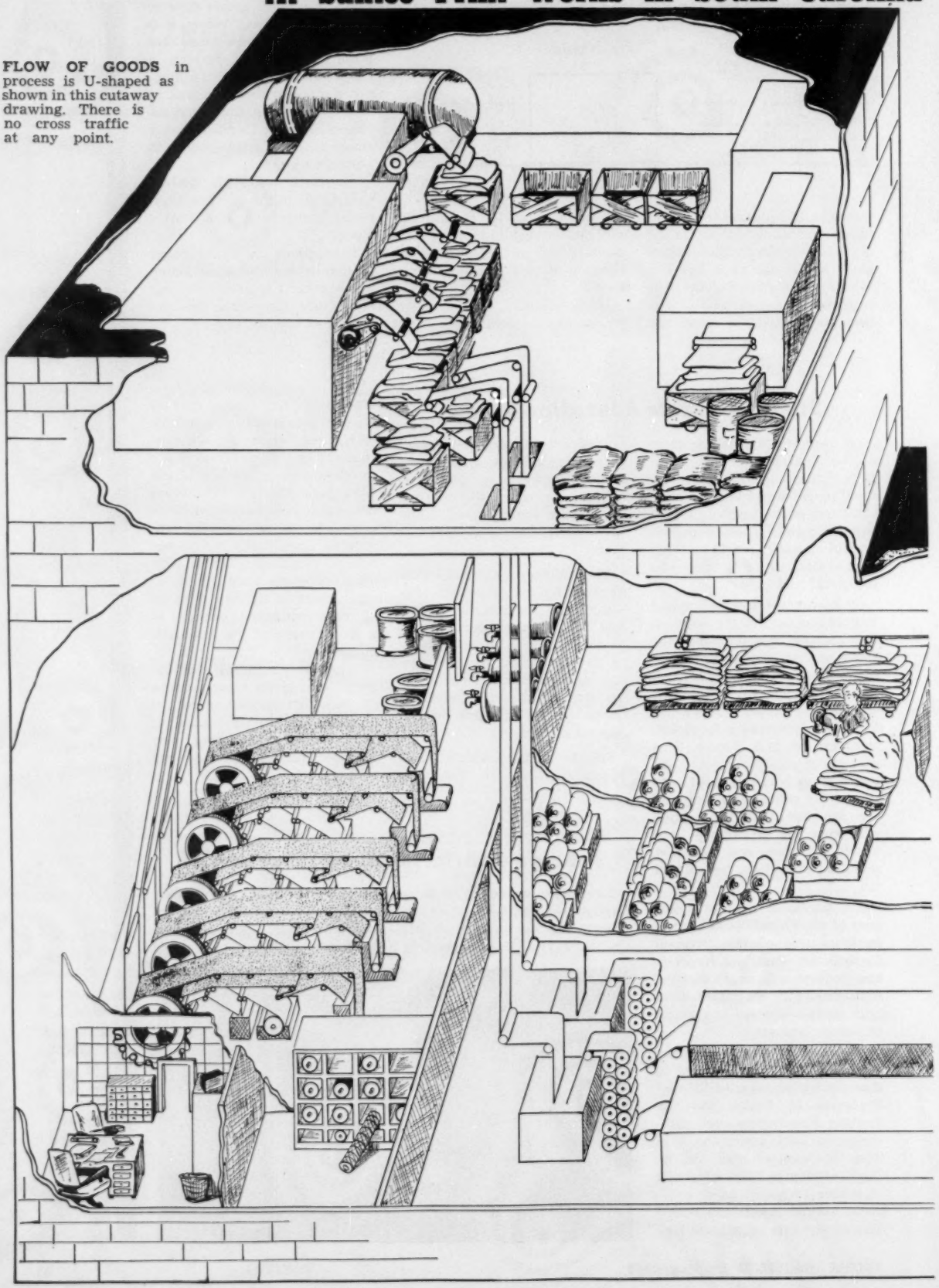
Tubular Fabric Fuzziness Burned Off

Fire hose woven by a New England textile manufacturer is "cleaned up" by a shot with this gas flame gun. Note protective guard for roll of hose. This burning removes linen fibers protruding from edges of tubular woven cloth.



At Santee Print Works in South Carolina

FLOW OF GOODS in process is U-shaped as shown in this cutaway drawing. There is no cross traffic at any point.



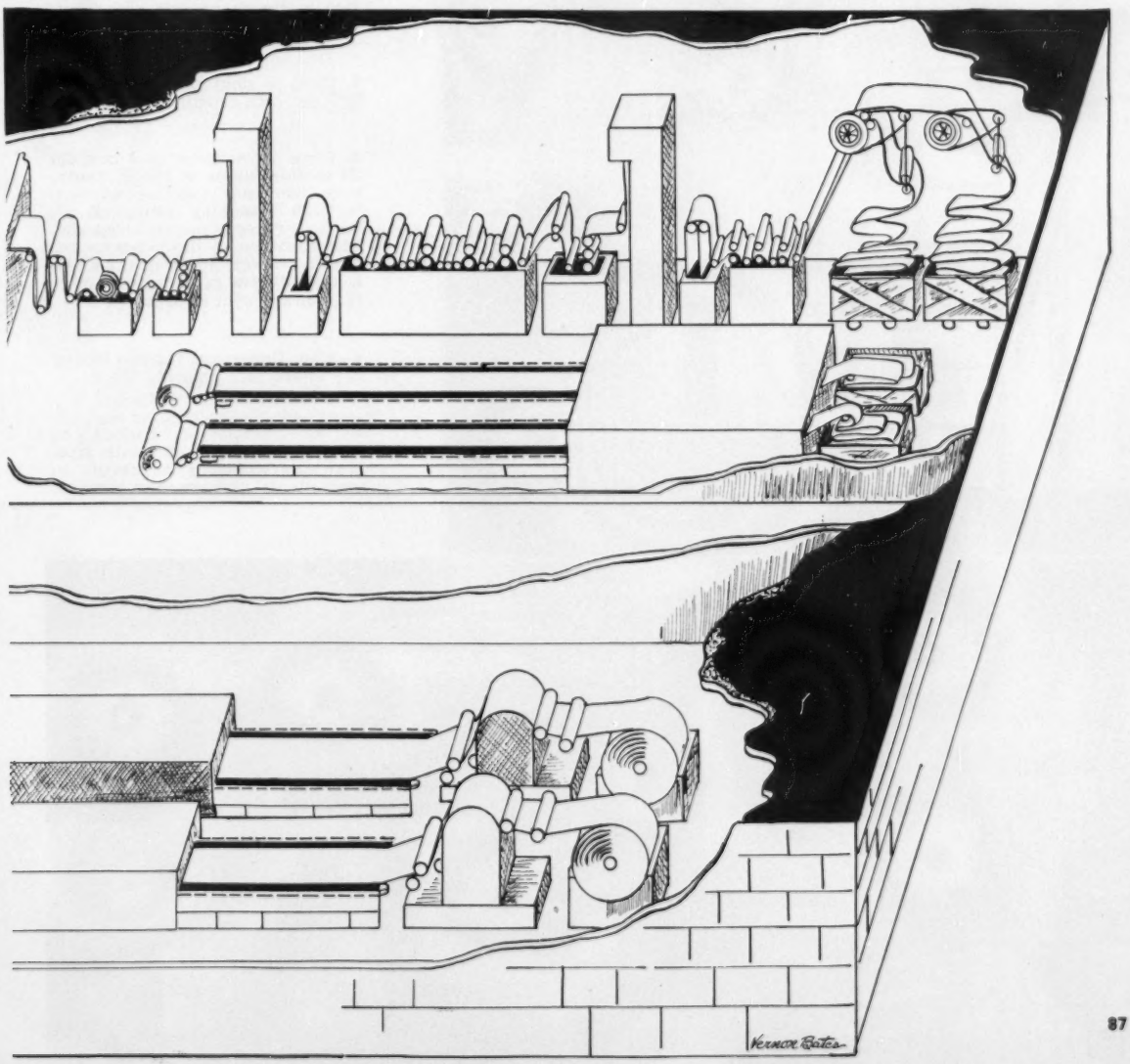
finishing increases the fabric strength

Staff Prepared
EXCLUSIVE

SANTEE Print Works, Sumter, S. C., commission bleachers, printers, and finishers, return finished goods to the customer in most cases with a higher break strength than the grey goods had when they were received. This improvement on standard practice is only one of the results the company has achieved by a combination of modern machinery, novel innovations on conventional processing procedures, careful attention to details, and efficient plant design, topped by an imaginative management team.

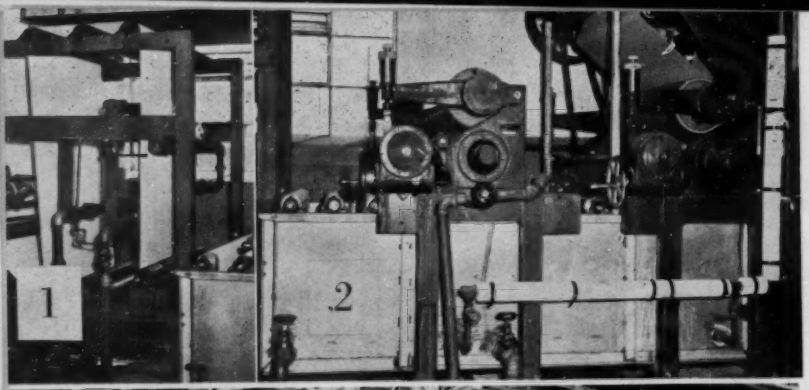
Santee applies crease resistant and other resin finishes, and starch backfilled finishes for dress goods. The company is one of the country's largest printers and finishers of printed pillow cases and reusable cotton bags. Other fabrics handled are cotton and cotton-rayon draperies, light print cloth to which a quilting finish is applied, and terry cloth.

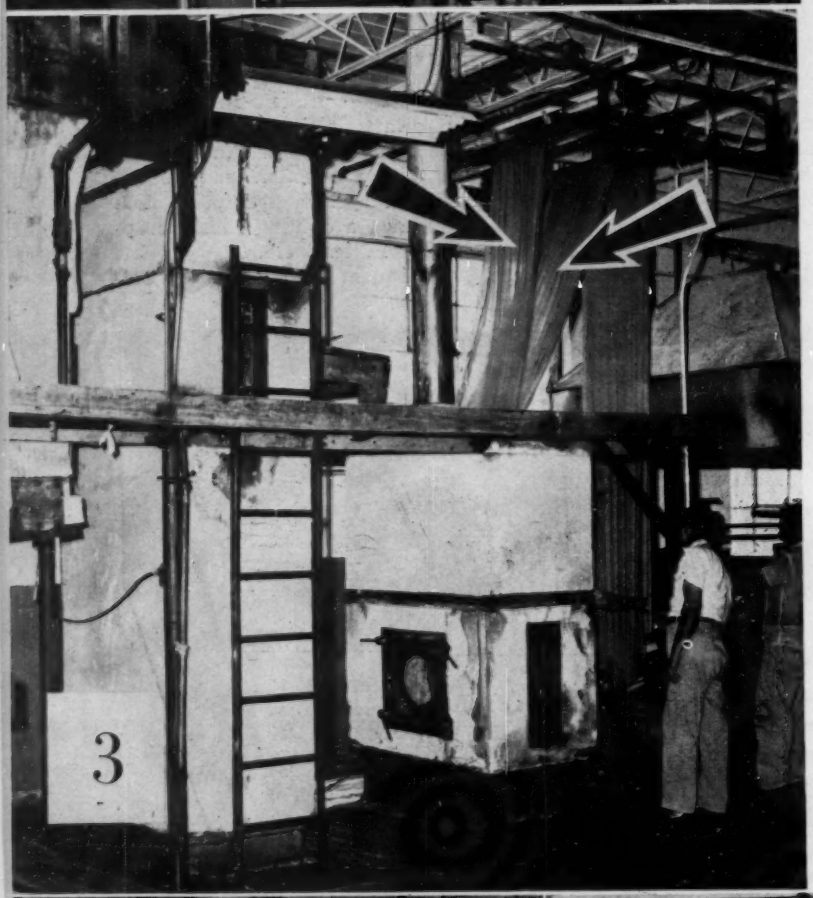
The plant was designed by Cal-



The Santee Story

continued





vin F. Embody, general superintendent; R. B. Graham, superintendent of printing; and Eugene Anderson, master mechanic. Flow of goods in process is U-shaped, and there is no cross-traffic at any point.

Some of the highlights of Santee's methods are presented briefly, in picture form, on these five pages [86-90]. Numbered captions correspond to numbers on photos.

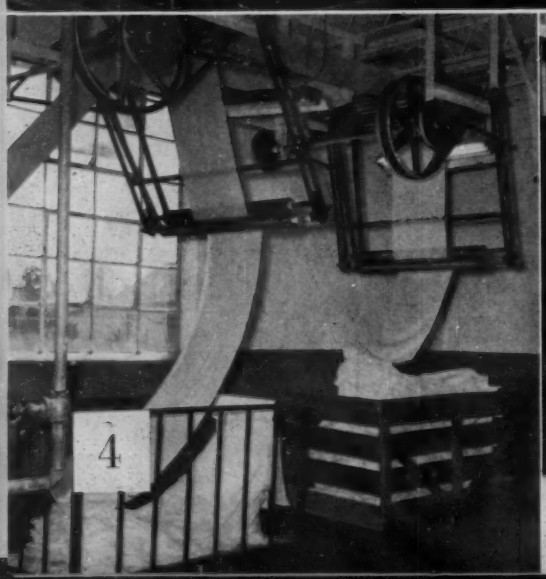
1. Santee's bleaching process, which usually turns back to the customer a stronger fabric than received, starts here with singeing. Extra burners are for singeing two fabrics simultaneously (see photo No. 3).

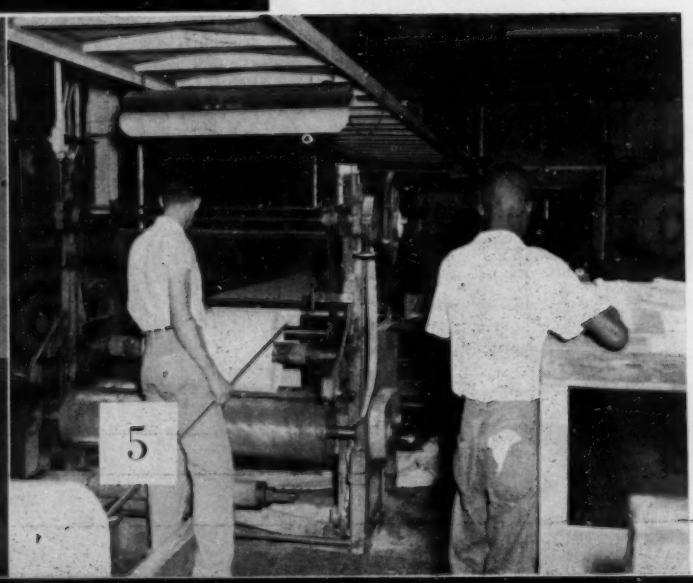
2. Cloth is next saturated with 8 to 9 per cent caustic soda solution.

3. Cloth is steamed in J-box for 40 to 50 minutes at 190 F. Santee runs two ends together (arrows) through bleaching range on all fabrics except heavy draperies. The capacity of the J-box is the limiting factor. Speed of the range is 10,000 yards per hour, not more than 50 per cent of capacity.

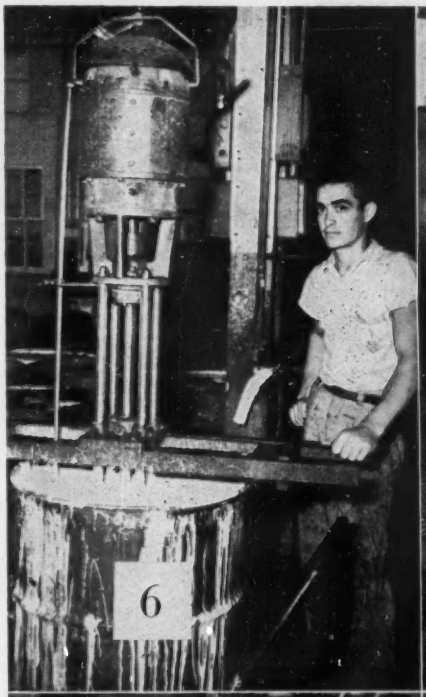
4. After final rinse, the two fabrics are folded into separate trucks.

5. All goods are framed to straighten and pull to width after bleaching (contrary to practice in most plants) and are then batched.

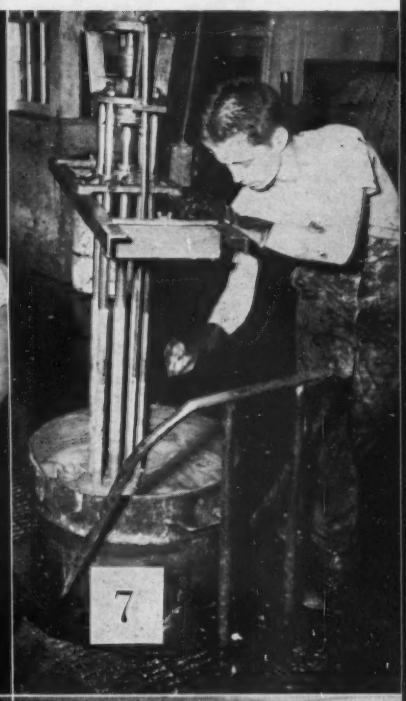




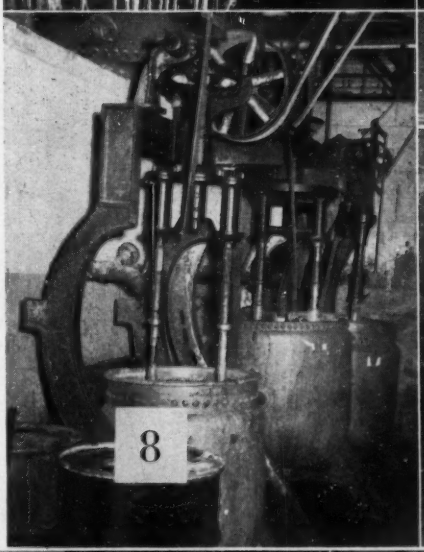
6. Printing vehicle for pigment colors (Aridye and Sherdye) is Sherdye Extender No. 51 in a Varsol-water emulsion, stirred with Eppenbach mixer. Three parts extender plus one part concentrated color makes a "floor standard."


6

7. Floor standards are blended for various shades, stirred with Eppenbach mixer. Mixers can be raised and lowered by hoist and moved on monorail to any part of room.


7

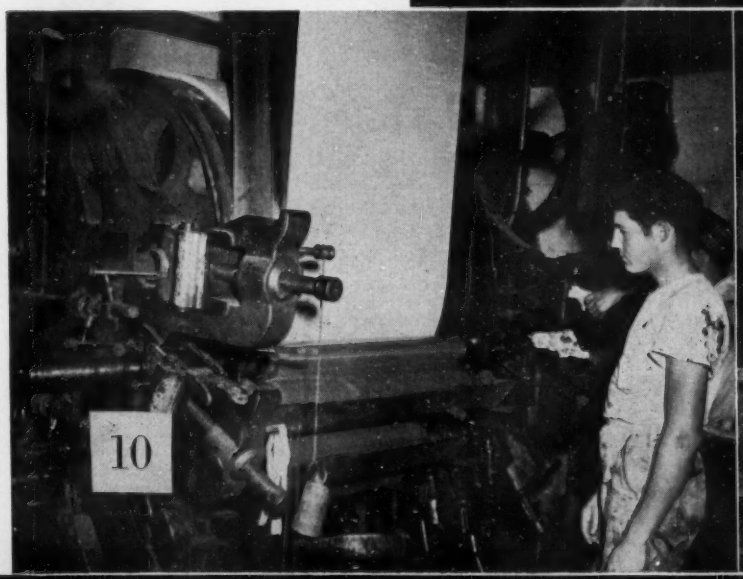
8. Vehicle for Rapidogen colors is Printex 200, 18 ounces per gallon, boiled for one hour and then run into these storage tanks, where preservative is added. Rapidogens are received as four-ounce-per-pint solutions; colors are designated by ounces per gallon, as a "four-ounce color," which would be prepared by diluting one pint of the basic color to a volume of one gallon.


8

9. Rapidogens are strained through 80 x 80 print cloth, pigment colors through 48 x 44 print cloth.

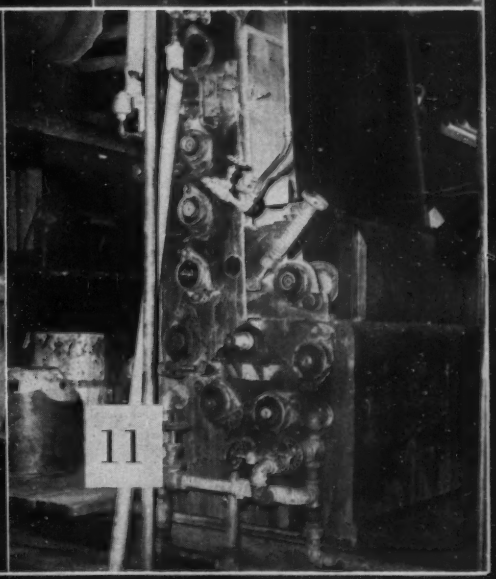
9

10. Nylon-face blanket is used on this printing machine, in place of rubber in-line blanket, and is said to give a better mark and permit running of closer fit patterns.


10

11. Nylon blanket is washed in standard blanket washer, but with the assistance of certain additives. Blanket is dried, rather than using talc. Solvent can not be used, since it is too harsh on the blanket.

(Continued next page)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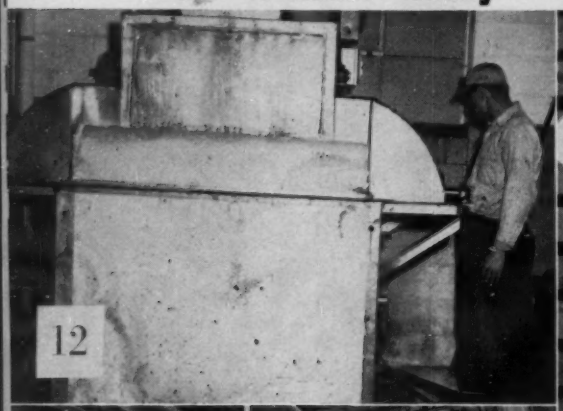
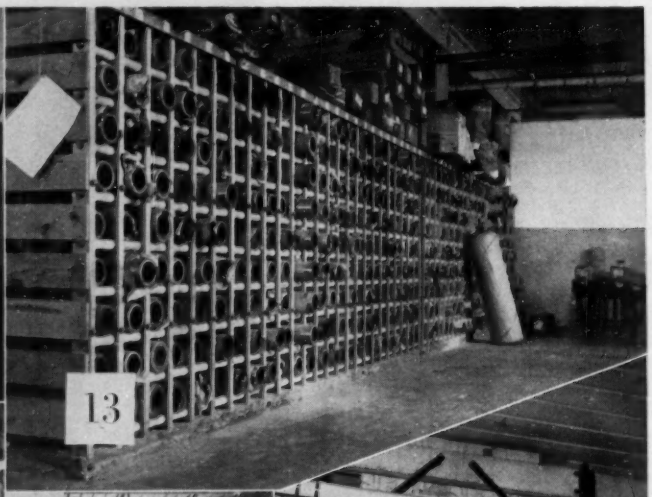
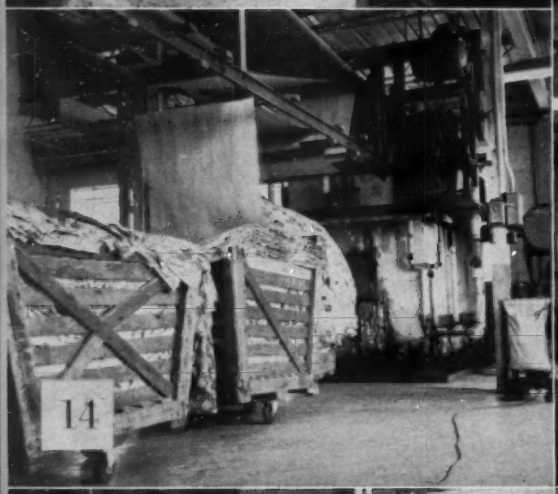
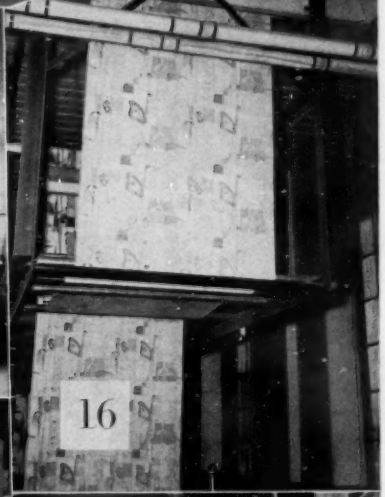
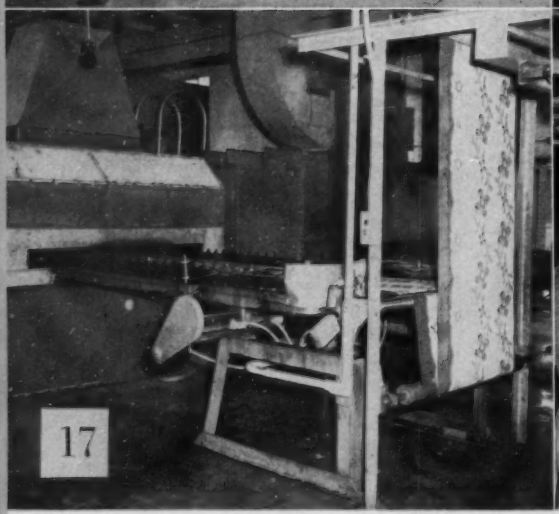










12. Patches are taken every 300 to 400 yards when running on Rapidogen and chrome colors, passed through acetic and formic acid vapor for 2½ minutes in this sample-size acid ager. A spot from each color tub is also acid-aged.

13. Engraved rollers are wrapped in paper, stored here. Chart enables instant location of any roller. Rollers which are not to be used again are sent for re-engraving in a new pattern.

14. Goods are steamed in acid-ager, in vapor composed of 1 part formic acid 90 per cent, 3 parts acetic acid 56 per cent, and 6 parts water. Time of aging is 1 to 3½ minutes. Chrome colors are run twice through steam after acid aging, to fix the mordant.

15. Acetic acid is received in tank-car lots, stored in this tank located indoors next to acid ager.

16. After drying, goods go through floor to finishing department, an unusual arrangement.

17. Tenter opens to 6 feet. Dryer is gas-fired; temperatures for curing are in the 300 to 400 F range.

18. Cloth is inspected in put-up room on mill-made, motor-driven perch.

Staff Prepared

EXCLUSIVE

DIVERSIFY

to meet the threat of those imported goods

FOR OVER a hundred years Stevens Linen Associates, Webster, Mass., functioned as an integrated mill devoted primarily to producing linen toweling; during the past three years equipment and administrative facilities have been added to provide, from the mill's regular spinning production, three additional classes of goods: fire hose, decorative fabrics, and automotive upholstery cloth.

This program was the result of competitive pressures created by unbalanced duty schedules covering imported toweling. Its basis is extension of production to product types which stress styling; it is made possible through increased attention to requirements in the selling market.

The Program. The diversification program has been limited by 2 reservations: (1) fabrics produced include, for the most part, those which take full advantage of the mill's own spinning and weaving equipment, and (2) linen is still the key fiber used; variations usually are confined to weaving different fillings into standard linen warps.

These guides limit most work being done to use of the mill's linen spinning system; the ability of this system to produce variable diameter yarns of the thick and thin type has fitted in well with current market demands for "textured" fabric effects. The flow of materials in this spinning system is shown in an accompanying set of photographs [page 93].

The fire hose department, in existence since 1951, produces 1½- and 2½-inch hose from yarns spun of long staple line flax fiber. Fletcher and imported looms were provided for weaving the goods, along with the testing facilities required for certification by the Underwriters.

The mill has added 60 wide looms to accommodate the decorative and automotive goods. At Stevens, wide looms represent an 84-inch width as against the narrow or 30-inch complement normally used for toweling.

The decorative class of product has been in the mill since 1952, with a period of 1½ years required for development of the department. These fabrics are all made on linen warps, mostly yarn dyed in the mill's own dyeing department. Much of this production calls for slub rayon filling, and rayon in combination with aluminum-based metallic yarns.

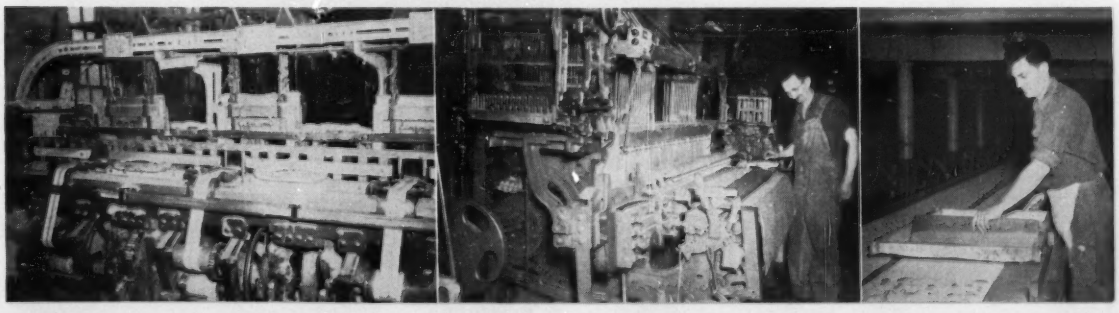
The automotive diversity employs the wide loom facilities to include 100 per cent linen fabrics with uneven surface effects, all yarn dyed.

As a means of keeping up with market demands for new lines, Stevens Linen has extended its towel production to include screen printed work to supplement the standard yarn dyed towel. This required the construction of 3 full width printing tables in a separate department.

Administration. The main problem of guiding this expanded operation is to strike a balance between the requirements of the sales departments and the potential production and versatility of the mill. This is accomplished through close liaison by company president, Hugh W. Crawford, Jr., between selling and production facilities.

By maintaining a New York office, Mr. Crawford is able to quickly gather information con-

FOREIGN COMPETITION prompted the addition of these products to Stevens Linen's line during its diversification program: fire hose (left); automotive and decorative fabrics (center); and screen printed toweling (right), added to supplement the mill's traditional production of yarn dyed striped toweling.



A Case for Tricot Sheets

By Daniel A. Davis*
American Viscose Corp.

We feel that problems of the entire tricot industry can be corrected by more outlets for your fabric, and . . . . an outlet which can put the tricot industry in a very strong position. . . is the tricot sheet. . . .

We have always considered a combination acetate-nylon fabric to be an excellent one and thought that sheeting would be a perfect place for such a fabric. The nylon would give shrinkage control and the acetate would give absorbency, opaqueness, and luxuriousness of hand.

To test the wearing qualities of such a sheet, we obtained in the market a fabric that had been intended for underwear, consisting of 50-50 acetate and nylon with 40 denier nylon on the top bar and 55 denier acetate on the bottom bar. We also obtained a fabric containing 85 per cent acetate and 15 per cent nylon with 55 denier acetate on the top bar and 15 denier nylon on the bottom bar.

We made these fabrics into sheets and, together with an all-nylon sheet, we gave them 100 launderings in a Norge agitator-type laundry machine and 100 tumble dryings. This was primarily for a quick wear test. . . .

We found that all three of these stood up to laundering without any wear or tear.

At about this time the first combination sheet of acetate and nylon appeared in the market, and we sent some of these sheets to "Good Housekeeping" for testing. "Good Housekeeping" found that every test they made met their consumer acceptance standards. Therefore, the sheets were qualified for the Good Housekeeping Seal of Approval.

We have been and still are experimenting . . . . with different proportions of acetate and nylon to see whether we can get a fabric that would bring the retail price of the sheets down and yet have good wear and non-shrinkage qualities.

To date we have tested sheets having nylon on the bottom bar and acetate on the top bar. When we put nylon on the bottom bar with acetate on the top bar we get excellent minimum wale-wise shrinkage. When we reverse the process and put nylon on the top bar

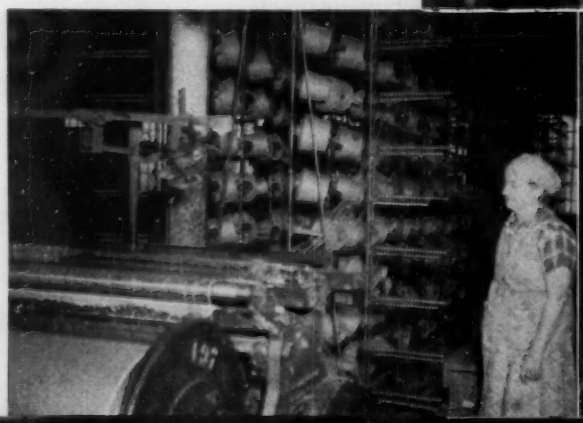
*Extract of talk given before the Warp Knit Group of the National Federation of Textiles, New York, N. Y.

cerning market trends from the company's selling agents, calculate how the demand fits in with mill facilities, and generally co-operate with customers to the fullest degree and still stay within limits of mill potential; over-diversification is guarded against at this level.

Generally, these market demands are translated into prac-

ATTRACTIVE PACKAGING is a "must" to meet foreign competition. Here towel is slid through mill-made funnel into plastic bag; bag is heat-sealed.

WARPING AND SLASHING were modernized to provide the wide warps required for decorative fabric and upholstery weaving.



we get minimum cross-wise shrinkage. If there is any difference in the over-all shrinkage, it favors nylon on the bottom bar.

We [have] completed a 200 wash and tumble drying cycle with 100 per cent acetate sheets and they have stood up perfectly to this wear test. Let me add, however, that we have not yet been able to make a 100 per cent acetate sheet that would stand up to shrinkage requirements.

It is also interesting to know that we sent 150 sheets to a "Quality" motel in the South. We have had questionnaires filled out by the customers of the motel. Seventy per cent of the answers were favorable; 15 per cent unfavorable; 15 per cent unanswered. The motel itself is most enthusiastic.

I personally have slept on sheets made of 85 per cent acetate and 15 per cent nylon for one whole year, laundered once a week. The sheets show no evidence of wear or undue shrinkage. . . .

We . . . . are so enthusiastic about the potential market for these sheets that we have developed a strong promotional campaign to educate the consumer to the advantages of these sheets. We feel certain that once a woman tries these sheets she will come back for more.

Our advertising will emphasize the luxurious sleeping qualities of these sheets, the self-ironing qualities, and easy laundering.

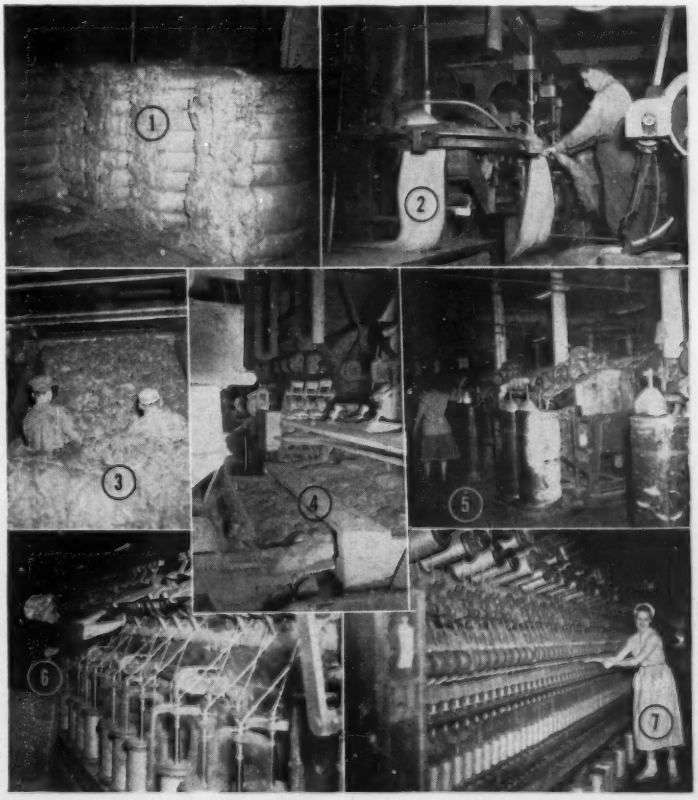
One word of caution—this program will need good quality fabric properly knitted, properly dyed, and properly cut and sewed. It will need good merchandising with cross-country-distribution. To begin with, it is going to be difficult to sell the consumer a synthetic sheet to take the place of the cotton sheet familiar for hundreds of years. This whole thing can be killed by a consumer's first experience with a new sheet if she finds it not satisfactory.

Those of you who are not set up to enter the sheet market should benefit indirectly since a large portion of the tricot machines will be taken off underwear fabric and put on to the sheet fabric. This will relieve the pressure on the underwear industry and allow a more stable price structure throughout the year. . . .

In 1954 the sheet and pillow case market consumed about 320 million pounds of cotton yarn. If we could obtain only 20 per cent of this 320 million, the total poundage of yarn going into the tricot market would more than double.

tical production reality by meetings held twice weekly at the mill. These are attended by the company president, general manager, superintendent, cost accountant and designer.

HERE'S THE SPINNING SYSTEM EMPLOYED AT STEVENS LINEN



1. Raw flax is secured seasonally from Belgium, France, Canada, and Ireland; must be kept cool in storage.

2. Hackling is the first step where extra-long fiber is used. The cleaned and paralleled fiber, called hackled line flax, is used for fire hose yarn.

3. Breaker card is fed with stock from bales of scutching tow (by-product of line flax).

4. Finisher card has 7 workers, 7 strippers, 2 doffers, and 2 feed rolls. All linen card cylinders turn in a clockwise direction, viewed with the feed rolls at the right.

5. Drawing cans hold up to 500 yards of sliver.

6. Roving operation is similar to that of other yarn systems.

7. Spinning room has 32 112-spindle frames. Temperature and relative humidity are kept high.

Joanna cut neps 15% with

Staff Prepared
EXCLUSIVE

JOANNA Cotton Mills Co., Joanna, S. C., installed metallic card clothing on 10 cards in October, 1951, and mill officials were impressed by the attendant 15 per cent reduction in nep count evident in the card web on 1 1/16" Middling cotton. The nep count remained constant at about this level. When 1 7/16" Egyptian cotton was run on these cards, the nep reduction was even more pronounced—it amounted to 25 per cent.

Quality was the major consideration in changing to the metallic clothing. Tests showed that less waste was made, and strips are fully a grade lower on the cards equipped with metallic clothing.

It was also found that much closer card setting could be maintained. For example, flats were formerly set to .010 gauge; now a .007 setting is used. Operating speeds have not been changed; cylinder speed is 165 rpm.

The ten trial cards were operated for three years with consistent results, and in 1954 a program of replacement was started; as card wire needed replacing, metallic clothing was installed on both cylinders and doffers. To date 65 cards are operating with metallic clothing in this mill and have been operating for nine months or more. Production is 8½ pounds per hour on these cards, the same as production on wire clothed cards. The same speeds are maintained because the changeover is gradual, and all cards must be operated at same production speed until the changeover is complete.

Tests. Extensive laboratory tests were conducted to determine the differences in performance of the metallic and wire clothing. 30s, 40s, 60s, and 80s cotton yarns were made from sliver run on the metallic clothed cards. No significant change was noted in sliver uniformity.

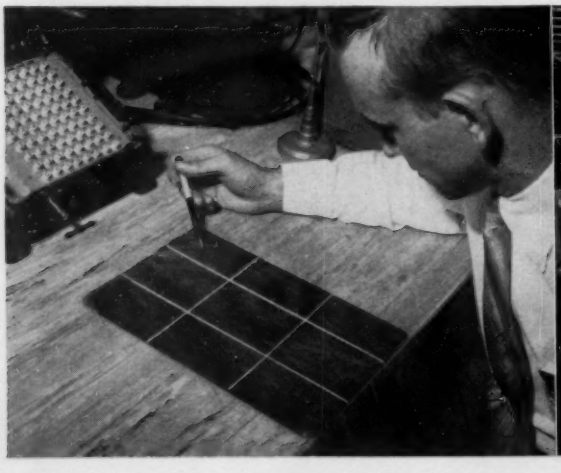
Tests in the laboratory showed a reduction in yarn imperfections on 30s yarn made from 2-hank roving from an average of 79 to an average of 72. This test was made on six bobbins of warp yarn, using 50 yards from each bobbin, and the samples were run on a Neptel. All processing conditions were maintained as nearly constant as possible during the tests.

The same test was run on 40s filling yarn made from 2.25-hank roving. Imperfections in this yarn were reduced from an average of 89 on wire clothing to an average of 72 imperfections made on metallic clothing. No significant change was noted on break factor.

In another test, half a picker lap was run through a wire-clothed card, and the other half was run through a metallic-clothed card. Neps per 100 square inches of card web amounted to 37.2 on wire and 29.6 on metallic. Ten samples were taken to obtain this average.

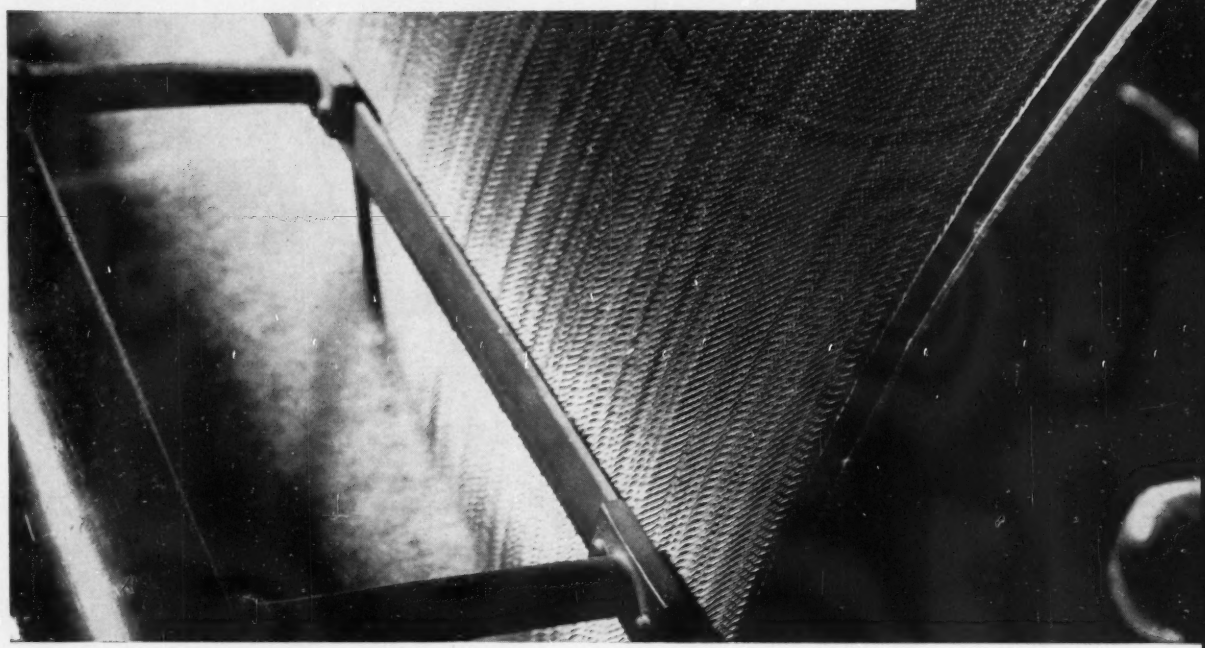
Waste. Cleaning efficiency of the card was increased from 50 per cent on wire to 59.1 per cent on metallic. Trash content was de-

15% REDUCTION IN NEPS was evident in the card web on 1 1/16" M cotton. On 1 7/16" Egyptian cotton a 25% reduction in nep count was effected.



FULL GRADE LOWER STRIPS are made on cards equipped with metallic clothing. Waste was reduced from 14.1 grains per flat to 11 grains per flat.

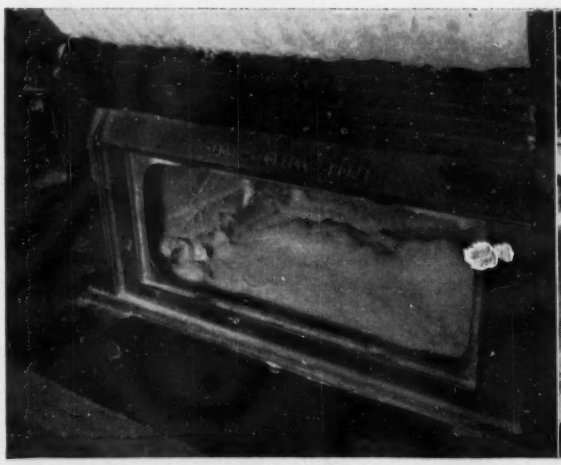
metallic clothing



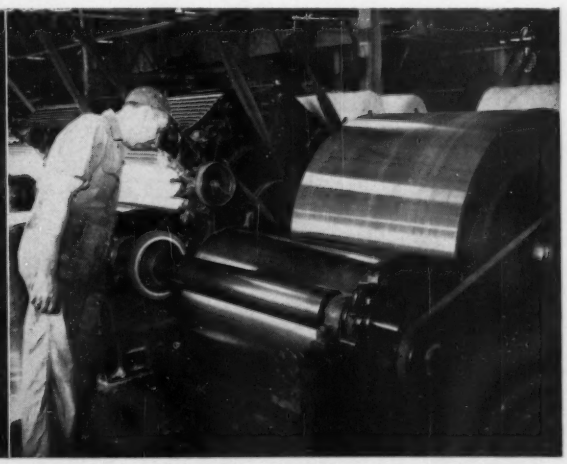
termined by Shirley Analyzer tests.

Waste per card flat was reduced from 14.1 grains on wire clothed cards to 11 grains per flat on metallic clothed cards. No change was noted in the amount of fly waste, and card sliver weight per yard remained unchanged. Shirley

CLEANING EFFICIENCY of the card was increased from 50% on wire to 59.1% on metallic clothing, as determined by Shirley Analyzer tests on card wastes.



ACCURATE AND UNIFORM SURFACES are necessary on both cylinder and doffer before installing metallic clothing. Overhauler grinds surfaces to required finish.



$1-an-Hour Minimum Ruled Void

District Judge Holtzoff of the U. S. Court of Appeals has ruled that the Labor Department's $1-an-hour minimum wage for the cotton, silk, and synthetic textile industry is invalid, according to reports.

The rate was determined by the Department under the Walsh-Healey Act, and applied to all firms with government contracts of more than $10,000.

Case hinged on the interpretation of the word "locality." According to Judge Holtzoff, application of the word to the whole United States is a "tortured interpretation."

Government is now appealing the case.

U. S. Mill Fiber Consumption Lowest Since '49; Wool Suffers Greatest Loss

Compilation of fiber consumption by the *Textile Organon*, statistical bulletin of the Textile Economics Bureau, Inc., reveals that in 1954 a total of 6,018,600,000 pounds of cotton, wool, man-made fibers, and silk were consumed. This was an 8% drop from 1953 and the poorest year for fiber consumption since 1949 when 5,440,000,000 pounds were consumed by mills in the United States. Consumption of all fibers except silk and the non-cellulosic man-made fibers declined compared with 1953.

Cotton, used to the extent of 4,124,000,000 pounds, showed a loss of 9% compared to 1953, while rayon+acetate consumption at 1,154,500,000 pounds was down 5½%. For both cotton and rayon+acetate, 1954 was the poorest year since 1949.

Wool registered the largest decline, however, with 1954 consumption at 391,600,000 pounds or 22½% under that of the previous year and 47% under the all-time record consumption of 737,500,000 pounds in 1946. Wool consumption last year was smaller than in any year since 1938.

The non-cellulosic man-made fibers continued in an upward consumption trend which has been under way virtually since their inception. A total of 342,100,000 pounds was consumed in 1954, a gain of 14½% over 1953.

Silk consumption, which had dropped off to 5,400,000 pounds in 1953, recovered to 6,400,000 pounds in 1954; silk, nevertheless, remains a nominal part of the total supply of textile fibers.

In another measure of fiber consumption, the *Organon* computed poundages on the basis of processing losses, sheerness or fineness of woven or knitted fabric, and the wear-life or durability of the fabric in use. Under this concept, which the publication has named "utility poundage," the man-made fibers in 1954 accounted for 30½% of all fibers used compared with 28% in 1953. Without the "utility poundage" adjustment, the man-made fiber share of total fibers consumed was 25% last year compared with 23% in 1953.

Civilian per capita fiber consumption in the United States during 1954 totaled 32.6 pounds, according to the report. This figure consisted of 21.8 pounds of cotton, 8.2 pounds of man-made fibers, and 2.6 pounds of wool. The 1954 total represents a 10% decline from 1953 and is 6½% below the 1952 figure of 34.9 pounds.

A comparison with 1953 indicates that per capita consumption last year was down for all fibers, with the largest percentage decline in wool. With total fiber consumption down 10% compared to the previous year, the respective fibers showed the following losses: cotton 10%, man-made fibers 4½%, and wool 23½%.

Analyzer tests on card sliver showed 1.8 per cent total waste on metallic as compared to 2.2 per cent on wire clothing.

All wire cards were stripped once every 36 hours; metallic clothed cards are stripped once each week, thereby reducing labor requirements and lost time. Wire clothing was ground once every 10 days; the metallic clothing requires no grinding.

A regular traverse grinder is used to grind new metallic clothing to obtain exact settings. Repairs to damaged clothing are easily made by rewinding the damaged section after welding on a replacement strand.

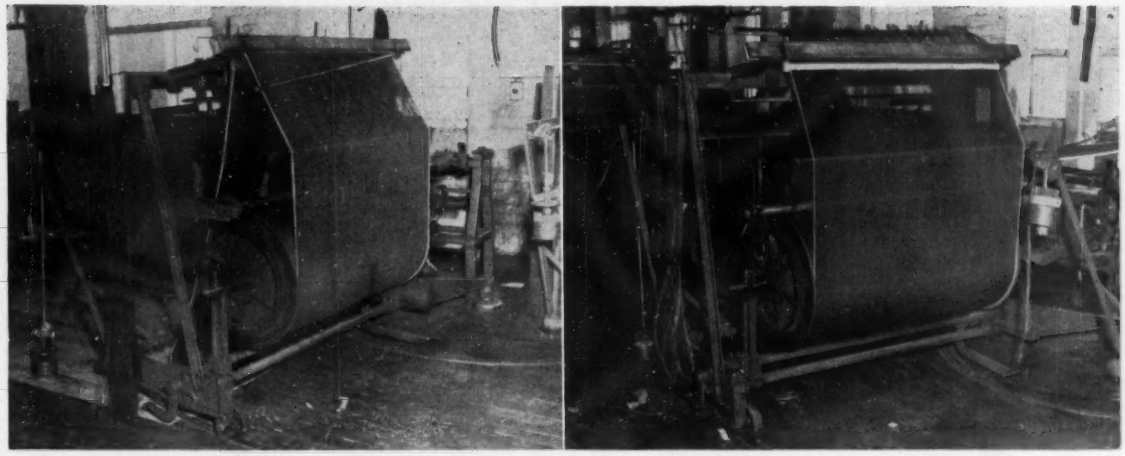
Approximately 500 pounds was added to the weight of each card because of the increased weight of the metallic clothing; however, power requirements remained unchanged, and no structural changes in the building were necessary. The card room is located on the second floor.

A card overhauler was trained in about four weeks to make the change to metallic clothing. One overhauler and a helper can strip, surface grind, and install the metallic clothing on one card every four days. A spokesman for the mill stated that this clothing is considered permanent.

Several small smashes have occurred on doffers; none on cylinders. In each instance repairs were made by cutting out the broken sections after securing adjoining sections with wood blocks, welding on a section of good clothing to the old clothing, and rewinding.

Only periodic stripping is done on this clothing. Impacted foreign material must be removed occasionally and this can be done only with a mechanical stripper. No other stripping is necessary.

Present life of wire clothing is six years in this mill. Savings on grinding, stripping, waste, downtime, and labor are expected to permit amortizing investment in each card in approximately eight years.



A YARD or more of warp was wasted at tying-in machine before Cone Mills began using taping device. Waste has been cut more than 50% (right).

a warp taping device enabled this mill to

REDUCE SLASHER WASTE

Staff Prepared
EXCLUSIVE

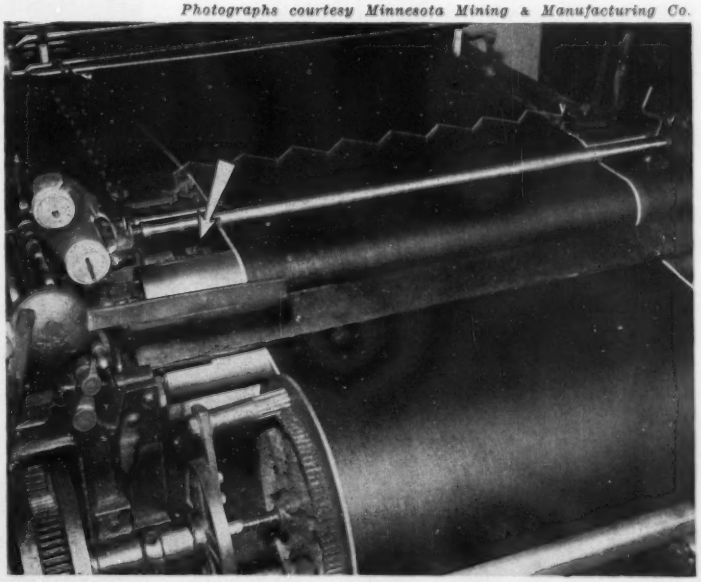
THE application of pressure-sensitive tape to warps at the slasher has been speeded up and yarn waste reduced through the use of a taping device developed by R. C. Honeycutt, assistant superintendent, and J. P. Bettini, master mechanic, White Oak Plant, Cone Mills Corp., Greensboro, N. C.

The value of pressure-sensitive tape in slashing had been recognized for some time at White Oak, but was not used because of lack of an easy, quick method of applying the tape to the warp. It was feared that the time required to doff when the tape was applied manually would result in too much hard size.

From the inventors' designs, the plant machine shop built a simple attachment for the slasher, which permits application of the tape by simply turning a hand crank.

This crank operates an endless chain, running under the warp, up-

Photographs courtesy Minnesota Mining & Manufacturing Co.



SCREW-DOWN CLAMP (arrow) receives end of tape from lower roll shown at left. Chain pulls tape underneath warp when operator turns crank at right.

How to Change a Worsted Card from Wool to Nylon

Where a worsted spinner plans to card nylon upon a metallic worsted card which has been in use for wool, certain modifications are necessary for good processing, according to information published by E. I. du Pont de Nemours & Co., Inc., and these are as follows:

1. Completely remove wool grease and oil from the clothing and segregate the card for processing of nylon only.

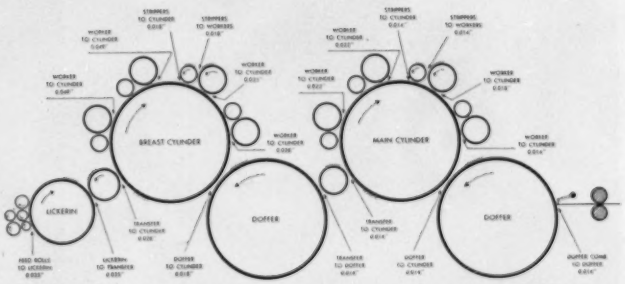
2. Reduce the stripper surface speeds within the range of 1¼ to 1½ that of the workers.

3. Remove the Morrell section or, if not practicable, adjust the brush so it does not pack but just lifts the fibers clear and transfers them to the main cylinder.

4. Remove the burr section or recloth the burr cylinder.

5. The worker speeds on the breast cylinder should be about two to three times that of the workers on the finisher main cylinder.

6. The type of metallic wire clothing on the main cylinder and the breast section affect the loading tendencies of nylon. Therefore, a more open wire than that which is normally used for wool is preferable.



Processing Difficulties. Some of the most common difficulties experienced in worsted carding are listed below with possible causes which may be helpful in attempting to overcome such problems:

Loading

(1) Loading on the main cylinders may be due to too low surface speed. (Minimum surface speed of cylinder should not be less than 2350 to 2400 ft/min.)

(2) Loading on strippers may be due to too high surface speed relative to the workers. Ratio of strippers to workers surface speed should be 1¼ to 1½.

(3) Damaged wire can cause loading.

(4) Improper humidity and temperature can cause loading. Conditions should be: RH 50% to 60%; temperature 75 to 85 F.

(5) Transfer rolls may be set too close and are packing fibers into the cylinder.

(6) Loading may be due to insufficient opening before carding.

(7) If the first worker on a cylinder appears to have more stock on it than its adjacent worker, increase the rotational speed by at least 10% over the other worker speeds on the cylinder.

Neppy Web

Caused by short fibers being rolled. Usually due to tight settings of the breast section workers and strippers which have caused fiber breakage.

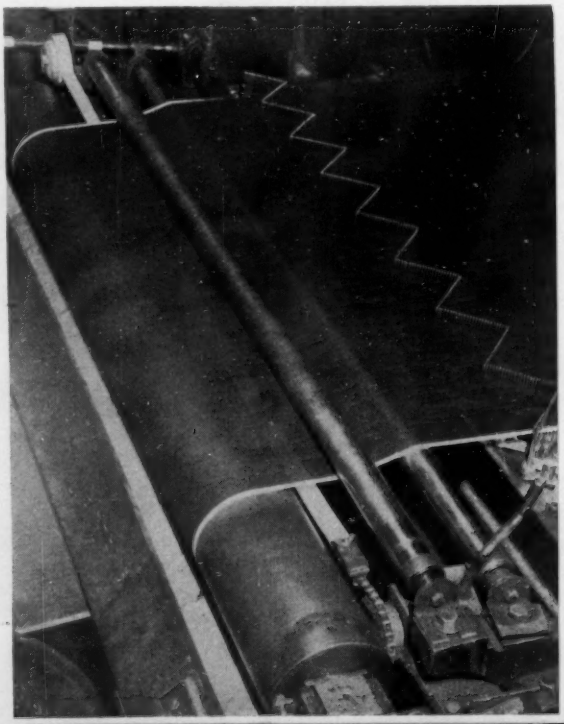
Flaky Web

May be due to insufficient carding. Suggest that last worker be set closer to finisher cylinder. If this does not clear up the web, continue to the next worker. *(Cont'd. next page)*

on which is mounted a small screw-down clamp. On the side of the slasher opposite the cranking mechanism—in line with the chain—are mounted two tape-holding drums, each of which supports a 1-inch by 60-yard roll of pressure-sensitive tape. The lower roll of tape is so mounted that when the tape is pulled off, the adhesive side faces up, while the adhesive side of the top roll faces down.

To begin the taping operation, about two inches of tape from the bottom roll is folded back on itself to provide a non-tacky end for insertion into the clamp. The operator then turns the crank, causing the chain to pull the strip of tape across the underside of the warp.

By lifting up on each end of the strip of tape, the operators force the tape against the under-



TAPE is pulled across underside of warp by turning crank in foreground.

Uneven Sliver

Usually caused by insufficient opening and uneven feeding. A pre-opening of the staple to eliminate clumps and tufts will help alleviate this condition.

Web Breakage

Can be caused by high tension between the doffer and calender rolls. Proper tension draft should be in the range of 1.1 to 1.3.

Card Settings. The schematic card diagram shown here with suggested settings was evolved from a worsted card and differs basically in that it lacks the burr and Morrell sections.

Profit Sharing Explained to Wool Mill Overseers

Members of the Interstate Textile Association, meeting on March 19 in Worcester, Mass., heard Louis C. Olmstead, personnel director at Aldon Spinning Mills, Talcotville, Conn., describe the meaning of the profit sharing system.

Stating that there was something about the management-labor picture in the New England states that left much to be desired, the speaker described profit sharing as a philosophy leading to a better industrial climate rather than a super-incentive plan. Through elimination of diverse management-labor interests, profit sharing allows the two groups to sit on the same side of the table in a business partnership.

Characteristic of the plan is the right for management to approach employees to discuss how to make more together. Speaking of the plan as it was installed at Aldon, Mr. Olmstead showed how employee committees were formed to consult with management, explain the plan to other employees, and administer the plan.

In this process two points were stressed: the material, labor, and overhead elements of cost, and the effect of waste on profit and loss. Regular statements of profit and loss are posted for employees, and the mill distributes 25% of the net profits before taxes to all employees on a point system basis. Points for each employee depend on earnings for the period.

Following was a question and answer period which cut across the entire woolen and worsted manufacturing field. Mill men informally aired their problems and members of similar experience offered suggestions as to possible solutions.

Among the problems discussed was a condition in woolen finishing in which goods will run to one side of a double action napper. One suggestion involved checking the guide roll and scutch roll to assure levelness, then making sure that roll wire was not sharp on one edge. The next idea was to check for improper wire direction on rolls; rolls were said to require clothing in an alternate manner.

Another problem concerned woolen frame spinning and how to prevent variation in bobbin size from one set to the next with all conditions remaining the same. Floor response to this varied, but one suggestion was to check builder motion cams. This condition of variation was less likely to occur, it was said, if a longer nosed, slimmer bobbin was made. This is done by using a hexagonal builder motion cam in place of the roller type, offsetting its placement by about 3/64 inch.

DEVICE was developed by R. C. Honeycutt (left) and J. P. Bettini of Cone Mills.

side of the warp threads where it adheres. The taping mechanism is so positioned that pressure from the rollers embeds the warp ends in the tape, and eliminates the possibility of loose or crossed ends.

To complete the taping operation, the strip of tape from the upper roll is pulled manually across the top of the warp and is pressed into place over the lower strip.

The ends of the tape are then torn off, removed from the clamp, and the beam is rotated until the taped section is wound up. The beam is then doffed at a point just beyond the tape.

Where previously about a yard or more of warp was wasted, to insure straight ends for tying-in, the complete warp up to the tape can now be used. Waste at the tying-in machine is at least 50% less.

Loom fixing tips and causes of

Weaving Defects

By Clyde O. Cronic
EXCLUSIVE

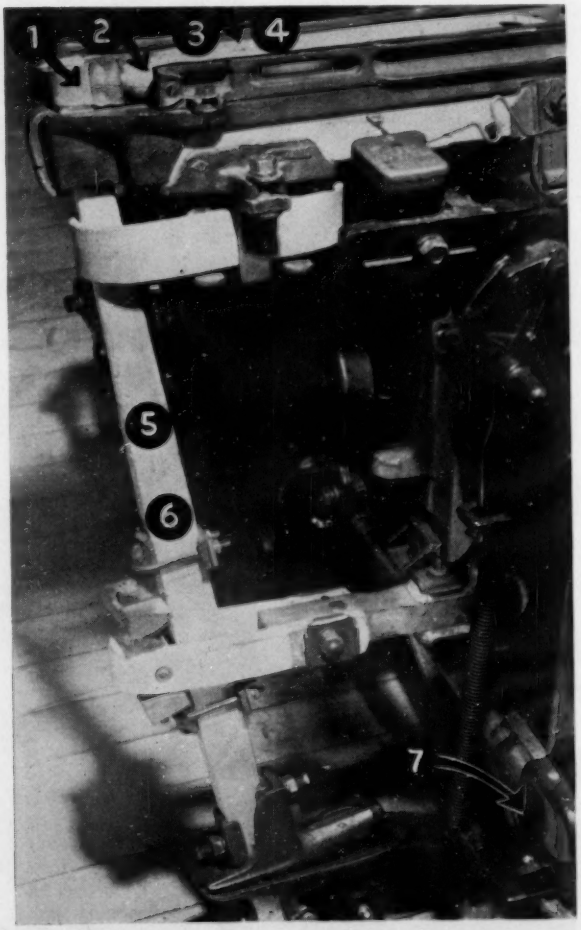
The author of this series has had years of experience in producing quality goods. Although his articles pertain primarily to cotton weaving, much of the information will be of value to weavers of other fibers. The series should be especially helpful to mills equipped with looms of models Modified D, XD, X2, E, and L.

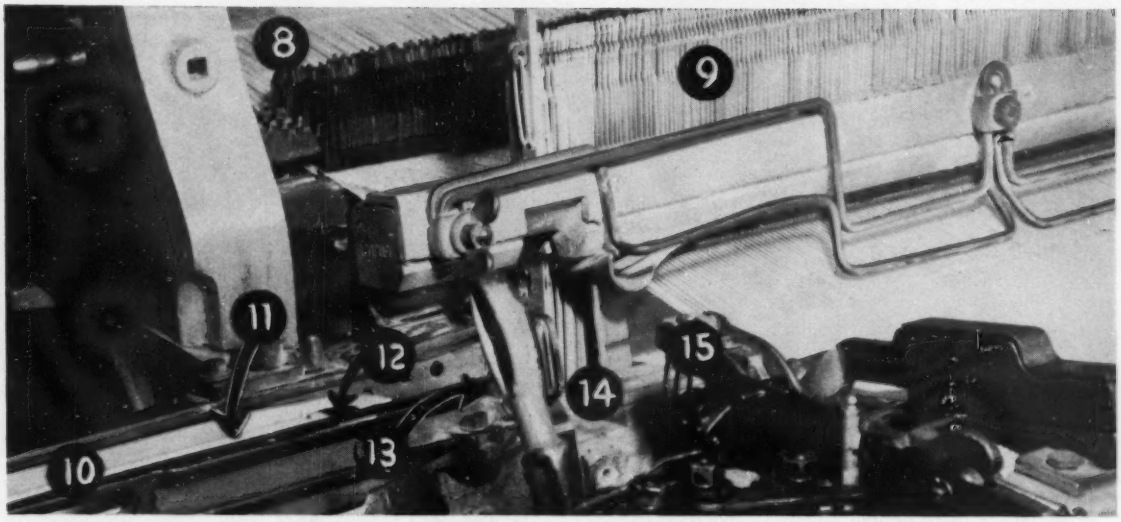
Part I: Causes of Kinky Filling

1. Picker too high or low.
2. Shuttle bouncing.
3. Leather worn out of back box plate.
4. Wood binders worn out.
5. Too much stroke on picker stick.
6. Picking early or late.
7. Worn rocker shaft or bearings.
8. Warp too tight or too slack.
9. Harnesses improperly set or timed.
10. Loom throwing crooked shuttle.
11. Too little tension in shuttle.
12. Bad shuttle eye.
13. Bad leather on front binders.
14. Loom out of line.
15. Filling fork going too far through grate.
16. Harness sheaves worn.
17. Harness sheaves sticking.
18. Harness ribs loose or broken.
19. Heddles not divided.
20. One heddle eye too high.
21. Bristles out of front binder on battery end.
22. Reed cap loose.
23. Shed not opening wide enough.
24. Temple too high.
25. Knots and gouts in warp.
26. Take-up roll, stop motion girt, and whip roll either too high or too low.
27. Sword loose.
28. Center bearing on cam shaft loose.
29. Cams loose on auxiliary shaft.
30. Treadle rollers and studs worn; stirrups improperly spaced.
31. Bad build on quill (from spinning).
32. Shuttle improperly grooved.

The following causes of kinky filling are not shown in the photographs.

33. Lacey head sticking or straps not divided correctly.
34. Tape selvage motion set or timed wrong.
35. Harness springs weak.
36. Crank arms loose.
37. Incorrect humidity in room.
38. Bad size from slasher.
39. Harness cams worn.
40. Bad mesh between cam and crankshaft gears.
41. Jack backs in dobby and cashmere head worn out.

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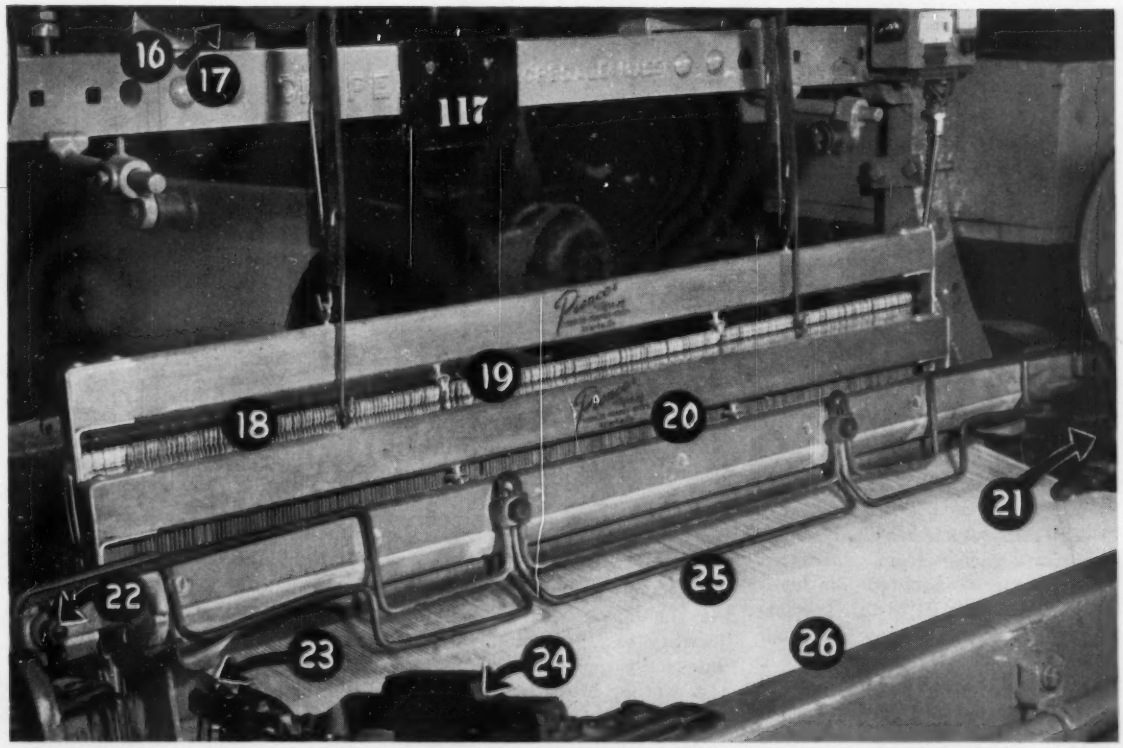
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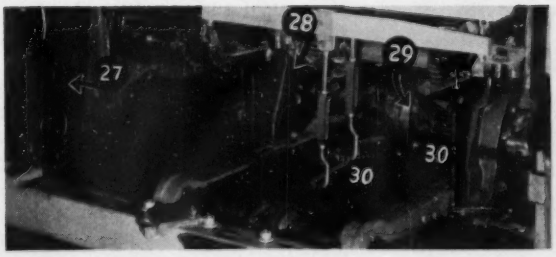
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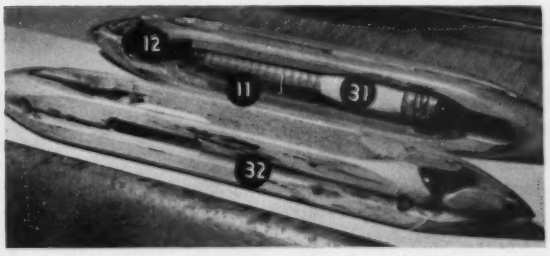
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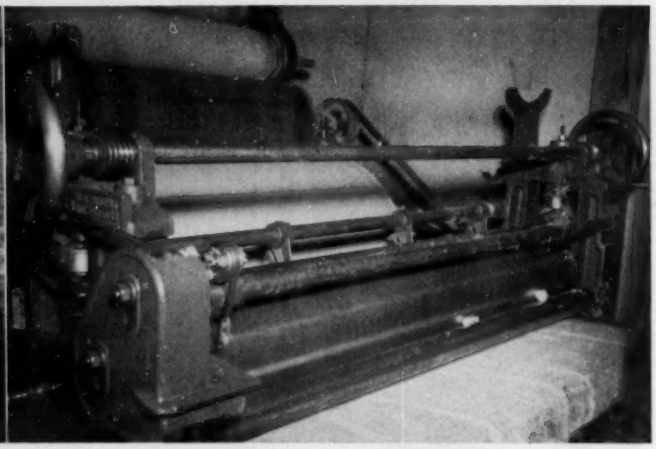
MIXING: Use a sandwich mix, be sure emulsion contains anti-static and softening ingredients, run through 6-bar picker three or four times.



CRUSHING: Hard, unopened, garnetted stock must not be allowed to get too far in carding. A Peralta on breaker card crushes these impurities.

woolen system spinning of garnetted Orlon

handle Orlon like fine

Staff Prepared
EXCLUSIVE

FULL SCALE Orlon yarn production on conventional woolen system equipment has, after 1½ years of development, been included in the commission services performed by Fine Fabrics Inc., Worcester, Mass.

The mill, which has always spun knitting yarns from garnetted woolen stock, adopted the synthetic as a parallel to this specialty; the source of its raw material, the Orlon sweater, has become a significant market development.

Current spinning production includes 3, 5, 6, and 6½ run, with finer counts having been made in quantity. Organization and techniques for working the Orlon stock are generally similar to those employed for a fine wool; particular attention and some special techniques were found to be very important in the mixing and carding stages. The finished yarn is soft, strong (a 6½-run Orlon is equivalent in break strength to a 4-run wool), fine (Orlon stock run here is equivalent to a 96s wool), and compares favorably with the virgin product.

Raw Materials. Fine Fabrics uses as its starting product a color range of garnetted 100 per cent Orlon sweater cutters, which have been picked twice on a 4-cylinder garnett.

Manufacturing Aim. Common to all mechanical processing in making the Orlon yarn is the large quantity of fly created whenever the stock is moved rapidly through a machine. Most techniques developed for the control of this con dition are designed to do two jobs: 1) reduce fly to decrease waste, and 2) to regularly remove fly from equipment, floors, ceilings, fixtures, etc., in the interest of good housekeeping.

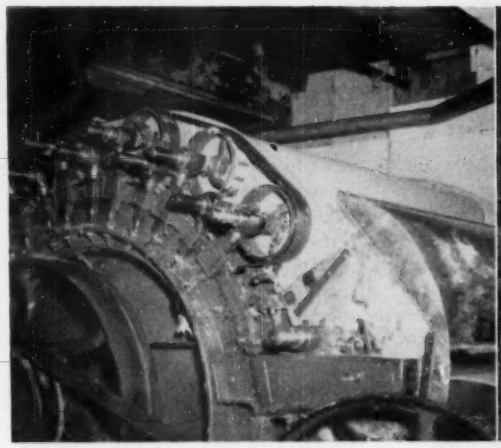
To avoid contamination, segregated mixing, carding, spinning, and winding equipment are reserved for the Orlon stock.

Mixing. This step accounts for a large part of the key to success or failure in spinning the Orlon yarn.

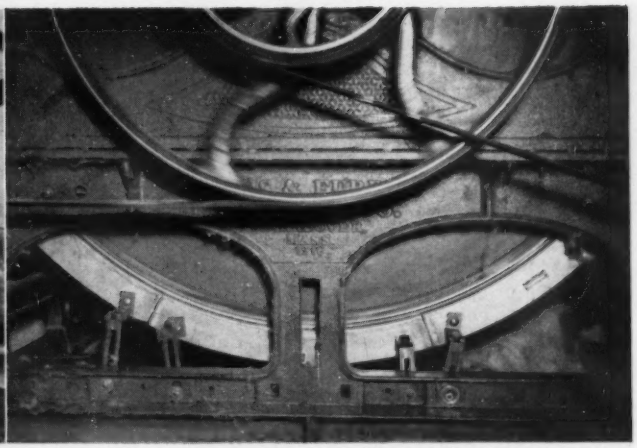
The mix is laid down sandwich style, and is oiled by hand at each layer. This traditional method of lubrication was found best for Orlon after considerable trial and error. By batch mixing and hand applying the emulsion, an exact percentage control of emulsion on the weight of the stock is possible. If the stock is too dry, static and excessive fly develop in following stages; if too wet, the Orlon will clot up in equipment.

The emulsion is prepared as is common for wool, with two additions: an anti-static agent and a softener. (Several brands have been used with success by the Fine Fabrics mill, including Avitex for both the anti-static and softening function, and Nopco TW for anti-static characteristics.)

Vertical cuts are taken from the lay-down by hand and fed to the hopper of a 6-bar mixing picker. Both a fearnaught and a 12-bar picker were first tried but eliminated in favor of the 6-bar type to avoid overpicking. The stock is



BONNETS: Covers for fancies (intermediate and finisher) will reduce fly; cheeks for workers and strippers also help.



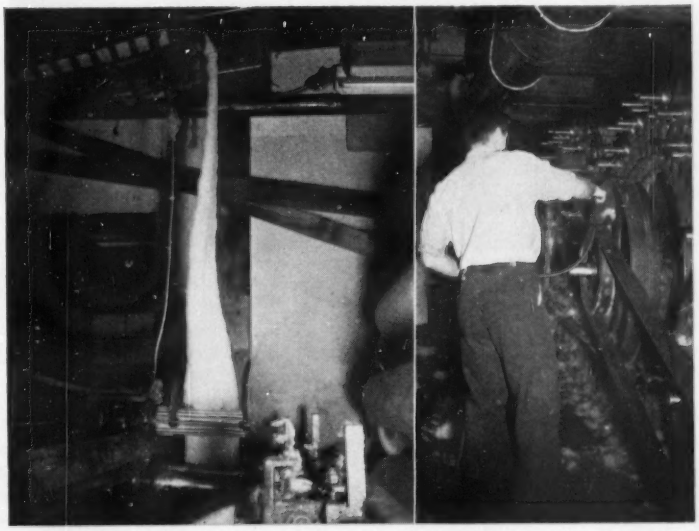
CYLINDER GRIDS: Up to 50 per cent waste reduction can be made by installing grids under all main cylinders of card set.

wool

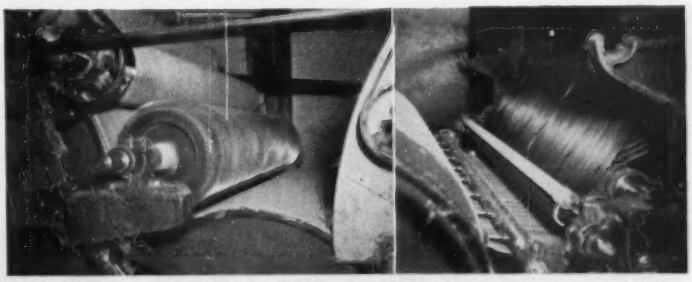
put through the mixing picker three or four times. After the last run-through the stock is blown to storage bins.

The picker is cleaned between batches by use of a compressed air hose. Danger of serious shading of yarns because of contamination is eliminated by scheduling a two-week picking cycle. This schedule calls for starting off with light colors and finishing off with dark. For example, the cycle starts with white; following this might be buff, pink, brown, etc.

Carding. All Orlon is run at Fine Fabrics on 60 x 60 Davis & Furber equipment; all main cylinders have been equipped with Rushton-Carroll grids. The grids were installed to reduce the high percentage of fly loss created at the downward thrust of the rotating cylinder; control of this condition has reduced carding waste by 50 per cent. The grids are mounted to conform to the lower arc of the cylinder, reaching from the licker-in to the doffer in the breaker and



TRANSFER: Avoid the need to open up tightly packed sliver in intermediate card by using broad band feed (left). Right: Considerable fly is created in all manufacturing operations. Blow equipment down often.



WIRE: Fancies must be perfect and open set (left); wire for cylinders should be fine, settings are close as for fine wools. Right: Leather tapes, unoiled, are best for this stock. Aprons should be rubber. These two precautions will help to prevent shaded yarn.

intermediate cards and from doffer to doffer in the finisher.

A Peralta is considered important to proper running by the mill and one is installed at the breaker delivery. Its function is to pulverize unopened hard ends.

Broad band feeds are used to transfer stock from breaker to intermediate card. This avoids forming the tightly formed sliver produced by other transfer methods.

To minimize fly, particularly ceiling fly, intermediate and finisher cards are fitted with cheeks for workers and strippers, also with bonnets for fancys. These covers also serve to reduce fire hazard.

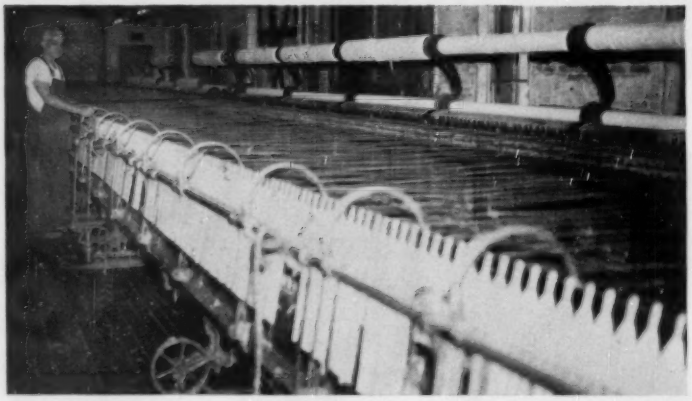
As is the case with fine wools, settings are close throughout the card set; cylinder speeds have been slowed down somewhat as is the custom when carding short wools.

Wire on the cards used at Fine Fabrics for Orlon is fine: breaker main cylinder—#32, intermediate—#33, finisher—#34; the finisher doffer is wound with #35 wire. Fancies must be perfect for this work and are open set (never finer than 30, generally 28).

Leather tapes are used in the tape condenser, and the mill does not oil them. This shortens the life of the tapes somewhat, but yarn quality is improved. Generally, the oil in the stock provides moderate tape lubrication.

The condensers are fitted with rubber aprons; this type does not require lubrication, thus eliminating the possibility of oil stains. This precaution against shading yarns is important because Orlon can't be freed of such soiling by after-scouring piece goods.

To help minimize static, card rooms are kept quite warm. Cards are blown down every two hours to remove fly.



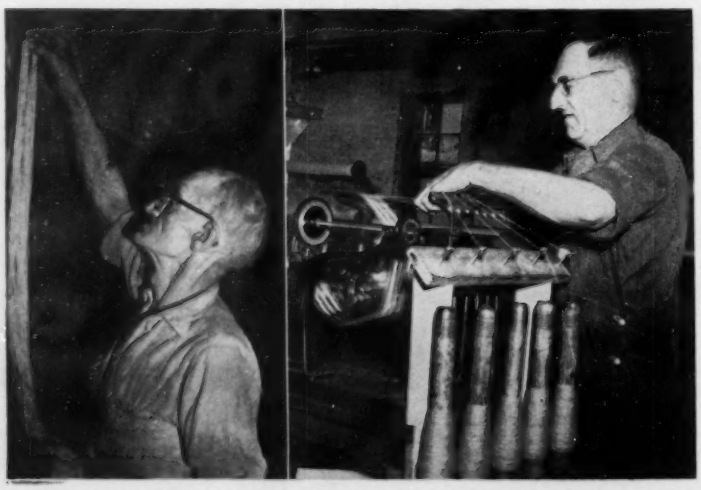
SPINNING: Mule-spin the Orlon knitting yarn for lofty result. Twist requirements are somewhat less than for corresponding wool counts.

Spinning. Because most yarn requirements in this Orlon range include considerable loft, Fine Fabrics has concentrated on mule spinning for its Orlon yarn production; most of the wool yarns are frame spun. Except for the fact that somewhat less twist is required than would be used for corresponding wool counts, mule adjustments and operation are standard.

Twisting and Winding. Yarn from spinning bobbins is wound on a 2½-pound 3° cone, and plied on a cotton-type twister. Delivery from the twister is wound on a twister bobbin, which is again wound on a 2½-pound cone, but this time on a 9° cone required by the knitting trade. This final winding includes running the yarn under a paraffin-type disc for lubrication.

Both types of cone winding are done on the same machine; the 3° package on one side, the 9° on the other.

CONTROLS: As usual, check roving and yarn weights regularly. At left, Frank Kohlstrom measures test skein of roving; at right, Ray Hatstat prepares yarn test skein.



The Future. Aside from the knitting yarn development described in this article, Fine Fabrics has also produced weaving yarns of the same fiber content. Blankets made from this yarn are considered by the company as an excellent candidate for future "wool-spun" Orlon production. The product is soft, light, and lofty.

New Single-End Mercerizing Process Improves Yarn Properties

William F. Luther, director of research for Dixie Mercerizing Co., Chattanooga, Tenn., has been granted three patents covering a single-end process of mercerization of cotton thread, the apparatus used in the process, and the improved mercerized cotton yarn or thread which results.

The improved results obtained are claimed to be brought about by thorough, uniform penetration of yarn by the mercerizing solution. Although it is a single-end process, the speed is such that it is economically practical. Further economy is achieved by the elimination of creeling, warping, splitting, quilling, and other winding operations.

The patents, USP Nos. 2,647,037, 2,686,955, and 2,688,863, include the following claims for the yarn mercerized by the new process:

1. Improved dye uniformity. This was demonstrated by knitting a fabric of which one-half was composed of a standard, commercially mercerized yarn and the other half of yarn mercerized by the new process. The fabric was then dyed and the uniformity measured by comparing the variation in reflectance readings made with a photoelectric reflection meter at different points on the fabric. Readings for the standard warp mercerized section varied from 15 to 17 per cent of a magnesium oxide standard, while readings for the section knitted of yarns mercerized by the new process varied from 17 to 18 per cent. The figures were 22.0 to 24.2 per cent, and 22.5 to 23.0 per cent, respectively, in another example.

2. Improved luster. Cotton yarn mercerized by this process registered 6.5 units on a Photovolt glossmeter by the method of ASTM Designation D 523-41T, compared to an average of 5.5 units for normal commercial yarns.

3. Freedom from pepper trash and fuzz. Part of the action to which the yarn is subjected during the new mercerization process is claimed to remove a substantial portion of the loosely bound short fibers and cotton trash which project from the body of the yarn, and to lay down the longer, more tightly bound fibers. "Fuzz counts" of new-mercerized yarns showed them to have only 50 per cent or less of the number of projecting fuzz fibers on a standard warp-mercerized yarn of the same count. The difference is greater with increasing yarn count.

EFFECT OF NEW MERCERIZATION PROCESS

Count	Single Strand Break (Oz)	Single Strand Elongation %	Twist (TPI)
19.10 before mercerization	31.0	5.92	9.7
20.24 after mercerization	34.8	4.04	9.8
39.22 before mercerization	18.4	5.67	12.7
40.98 after mercerization	20.6	3.37	12.9
47.62 before mercerization	14.9	4.95	14.8
49.75 after mercerization	17.5	3.49	15.0
78.12 before mercerization	9.9	4.83	18.9
80.65 after mercerization	11.1	3.63	19.0

4. Comparative freedom from two-ply knots. The new process does not add any knots incident to mercerization, since one bobbin taken from the machine fills one full-size knitting cone. Yarn mercerized by the new process has only about one-half the number of two-ply knots found in the usual commercial yarn.

5. Increased strength, and a single strand elongation between 1 and 2 per cent lower than the elongation of the unmercerized thread from which it was made. The accompanying table shows the change in physical properties.

6. Yarns mercerized by the new process are smaller in cross section than the same count yarns mercerized by the usual warp process, and therefore the fabrics made from them are more sheer and open. Dr. Luther claims that the yarn has "an appearance approaching that of a true filament yarn."

7. Yarn mercerized by the new process is claimed to have better knitting qualities, such as lower running tension, less lint in knitting, freedom from dropped stitches, and more uniform and level stitches. Knitting machines require far less cleaning. These improvements are said to result from the decreased fuzz and trash present, and from the comparative freedom from knots.

The basic feature of each unit of the machine is a pair of tapered rollers whose axes are askew to each other. The angle of skew is adjustable. The yarn is wrapped around and is advanced through the machine by these rollers in closely spaced turns in a helical pattern.

Mercerizing liquor is applied to the yarn by a padding roller, the top of which is pressed against the yarn between the advancing rollers, and the underside of which dips into the mercerizing solution, containing a penetrant.

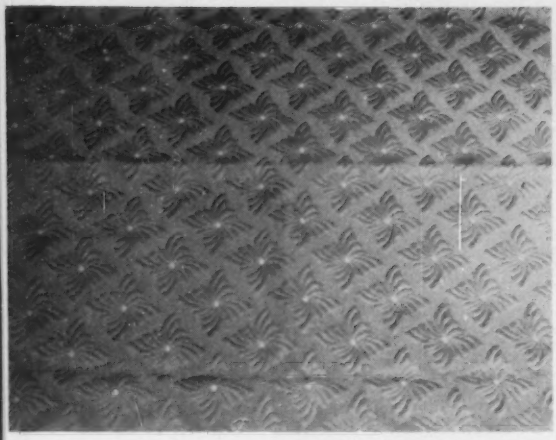
The yarn is then washed by contact with a roller which dips into a trough of water. Squeeze rollers pressing against the advancing rollers continuously extract water or mercerizing liquor from the yarn. Provision is made for recovery of the wash water for later reconcentration.

Stretch during mercerization is supplied by the tapered advancing rollers, which are of gradually increasing diameter as the yarn passes along them. In one form cited, the pitch of the rollers is 3 per cent, giving 3 per cent stretch.

The mercerized and washed yarn is passed over drying rollers with the same skew as the advancing rollers, and heated by Calrod units.

After drying, the yarn is led to a bobbin on the spindle of a ring twister.

Dixie Mercerizing Co. has released no further details of the process, but it is understood that a pilot plant model of the machine is under construction and is expected to be in operation this summer.



THE OLD LOOK . . . Hafner Associates formerly produced only light-weight, fine-denier, filament fabrics. Production and administrative facilities were geared strictly to this type of fabric.

A Silk System Mill

How a weaver of fine-denier filaments added automotive and home-furnishings fabrics to its line, solving problems encountered in handling heavier yarns made of cotton, nylon, and plastics

Staff Prepared
EXCLUSIVE

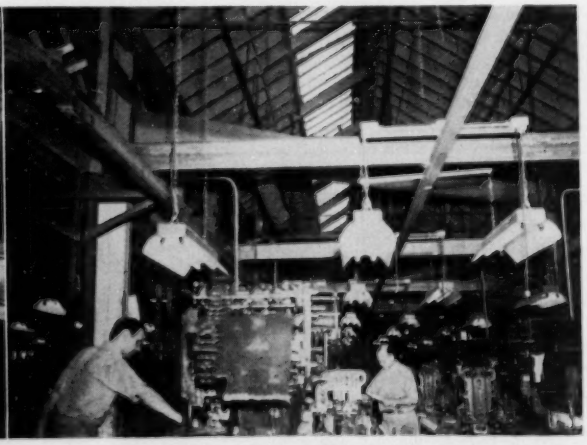
PRODUCTION facilities at Hafner Associates Inc., Long Island City, N. Y., were originally geared solely to the weaving of fine-denier filament cloths. As is the practice in such mills, this set-up included the range of so-called silk system equipment: winders capable of removing skeined yarns to bobbins holding about ⅓ pound, horizontal warping which warps in narrow sections from a vertical pin creel, filling winding which prepares quills holding about .05 pounds each, and small-shuttle box looms of the "S" series.

This equipment, designed for fine, delicate silk yarns is slow and lightweight; packages are small, and widths are narrow, with cloth weights produced rarely exceeding 4 to 5 ounces per square yard.

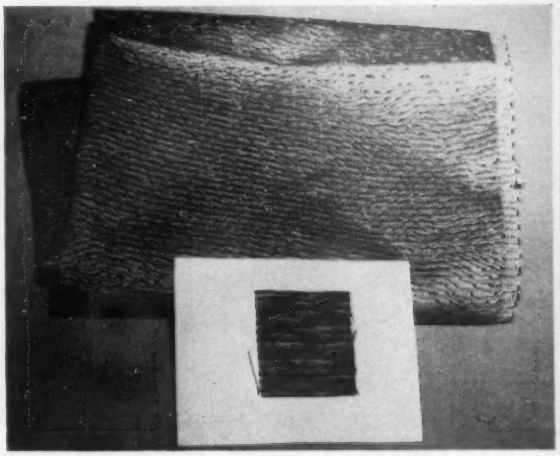
Today, in addition to this light-weight class, which includes elastic fabrics, dress goods, and industrial fabrics, a variety of box loom and Jacquard automotive and home furnishing fabrics have been added to Hafner's products, and have grown to a position of major im-

STOREROOM shown here is one of 6 placed near the truck loading platform. Formerly the plant needed only 3 such rooms; the additional 3 were built when incoming yarns overflowed the original facilities.

OVERHEAD CONVEYOR SYSTEM was installed to move bulky warps and cloth to and from looms. Cloth is moved from loom area on rails over cloth-roll aisles; similar rails over beam aisle are used to move empty and loaded beams.



THE NEW LOOK . . . Sample of automotive upholstery is characteristic of new heavyweight fabrics. Swatch illustrates how an old imported fabric served as inspiration for cloth seen in the photograph.



Goes Heavyweight

portance in that mill. The weight of these goods is in the 26 to 27 ounce class, and yarns used are cotton, plastics, and heavy-denier nylon; contrasted with filament yarns which range from 44,000 yards per pound upwards, this raw material can run as low as 600 to 800 yards per pound. Economical conversion from the silk system alone to one which also accommodates this new product has called for major mill revisions in both equipment and administration.

Raw Material. Two changes had to be made at Hafner to handle heavy and bulky shipments coming in for use in the upholsteries, particularly the plastic yarns. The plastics, coming in by the truckload instead of cases or packages common to filament yarns, first had to be provided with a new truck loading platform.

Located near this platform are 6 yarn-storerooms, 3 of which are newly built to accommodate the increased bulk of raw materials.

Warping. While the system in use is essentially the same as previously used, i.e. vertical pin creel and 8-yard reel, the wooden bars over which the yarn sections are wound required reinforcement with I-beam supports, and the beaming end of the reel was also reinforced (see accompanying illustrations for details).

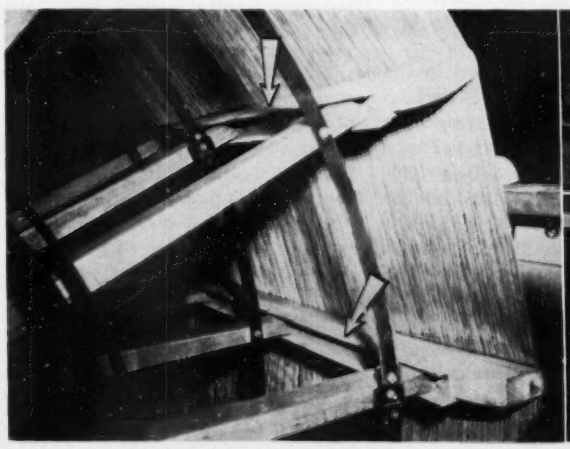
Since the heavier weight warps now used call for comparatively low sleys, direct warping in certain styles is now appropriate.

Quilling. Use of heavier and less sensitive filling yarns allowed for switch-over at Hafner to the high-speed, automatic Whitin-Schweiter units.

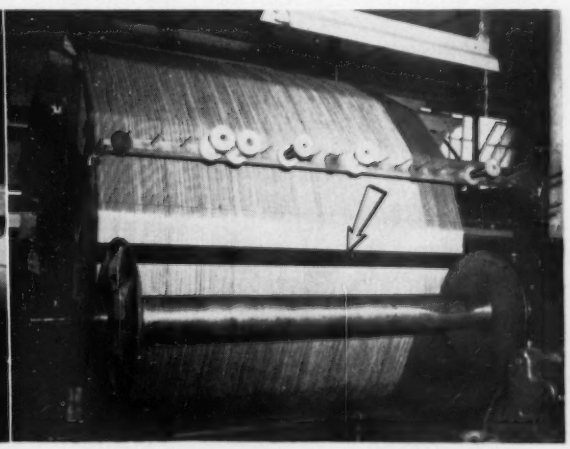
Although some of the silk system quilling equipment has been retained, most of the filling is now wound on the automatics installed to handle the heavier yarns.

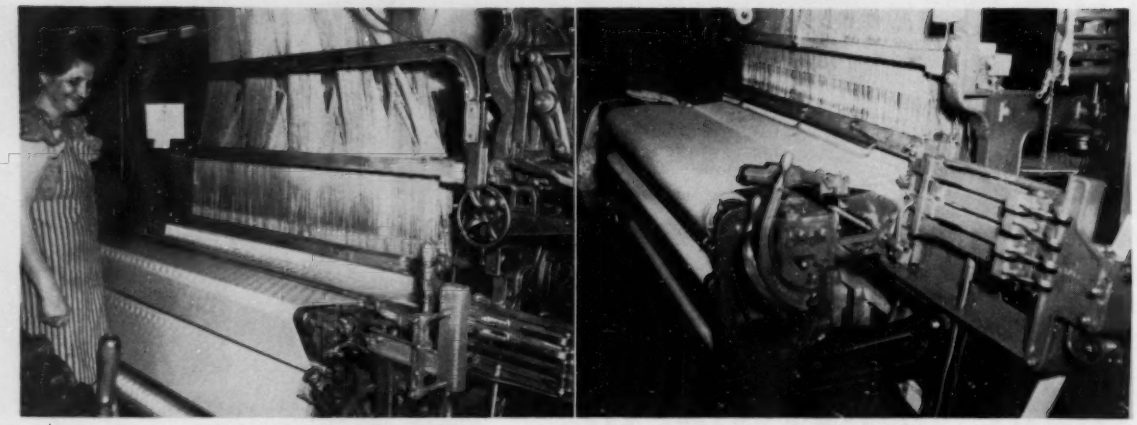
Weaving. Here, a major loom re-

WARPING MILL required reinforcement to withstand the tremendous increase in weight of warp yarns. Arrows indicate I-beam supports installed to bolster wooden bars of reel.

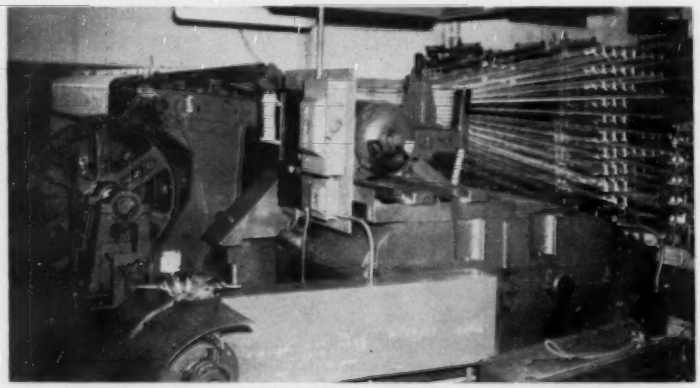


ANOTHER WARPING MILL SUPPORT is shown at beaming end of reel. Preparatory processes such as warping and quilling are the most important quality controls since the mill has switched to heavyweights.





THE OLD . . . . AND THE NEW SET-UP are shown here in sharp contrast. Note small shuttle-boxes, narrow width, woman operator, and floral pattern on loom at left. Loom at right used for the automotive cloths is also a W-3. Preparation and loom fixing are still of primary importance in quality control; however, the new set-up requires different skill than that required for weaving yarns of fine diameter in the high sley and pickage cloth usually found in the silk mill.



DIRECT WARPER, previously out of place at Hafner because of the predominance of very high sleys used, is now a time and money saver. Being warped here is a low-end polyethylene warp for leno weaving.

placement program was carried out. Hafner has a total of 220 looms; these are split about evenly into a Jacquard and a shaft department.

Fitting these two units to weave the heavyweight goods involved providing a material handling system and replacing many of the narrow, lightweight silk looms; personnel changes were also required.

Because of the several techniques required that are peculiar to plastic weaving (see TEXTILE INDUSTRIES, January 1954, p. 87), a separate weaving unit was provided. Most of this work is done on shaft looms, and most of the shaft work done in the plant is on plastics, so installation of W-3 looms served to set up this department.

The looms, normally found in a worsted mill, provided the required larger shuttle boxes and wider width.

W-3's were also installed in the Jacquard department and tied up with 180-end harnesses, which are more appropriate to upholstery weight goods than the 240- or 320-end work commonly found in the silk mill.

Most of the machines used at the plant are 1200-hook, fine-scale Jacquard heads. This set-up has provided weaving facilities for both the popular priced (shaft) and higher priced (Jacquard) upholstery fabrics.

With the change in loom types, two personnel changes were required. First, the highly skilled, tedious work required with silk and fine filament work was eliminated.

Also, the heavy nature of the loom has dictated change-over to a predominance of male employees in weaving departments.

Quality - wise, emphasis has shifted from meticulous care at the loom to better preparatory warping and quilling, plus the usual loom fixing attention.

The final weaving room change was the necessity for providing a conveyor rail system overhead to move full loom beams to the looms and to doff full pieces without having to do any manual lifting. While the beams are quite heavy, pieces are more bulky than heavy; for both of these reasons, rail systems have been set at ceiling level, running parallel to both beam and cloth-roll loom aisles.

The Fabric. Here, another basic revision was required: styling was of primary importance in goods made previously; the automotive fabrics stress both styling *and* functional specifications.

Covering these functional properties are a number of tolerances written into customers' requirements. An average of 80-120 hours in the Fade-Ometer is more or less a standard request; 1000 cycles at 500 gram weighting in a Taber Abraser; 60-pound seam slippage test (as against 25-30 required for

the average dress fabric); good resistance to bleeding and spotting; freedom from excessive weaving imperfections; and a break test of about 200 pounds warpwise, and 100 pounds in the filling, are among the strict requirements that Hafner's fabric men had to plan for.

This planning has found a certain level. Unless plastics are being used, the upholstery goods are usually designed to warp-effect satin grounds, with the warp being made of 200-denier, 8½T, dyed nylon. This has afforded excellent abrasion resistance and strength. Filling is usually a combination of nylon and cotton, and weaves employed are generally tight.

Although the company's collection of pattern reference books is still used extensively in developing patterns—both Jacquard and shaft—for the upholstery and automotive fabrics, a general trend in styling these goods has been away from geometrics and florals towards indefinites and surface textured effects, particularly those supplied by novelty yarns.

Administration. There is a basic difference between selling cloth to normal garment-cutting or home-furnishings users and to the large automobile producers in the Detroit area. Because of the great importance attached to scheduling all components at the proper time at the assembly line of the mass-produced automobile, strict observance to meeting scheduled and promised deliveries is a must.

Another characteristic of this trade is that a mill can't work "close to the vest" in dealing with it. Style lines must be prepared very early; customers expect to see samples 2 years before they are actually to be used. Also, inventories of large poundages of yarns must be kept ready for last minute alterations and/or additional orders that must be delivered quickly.

In order to assure proper attention to the details of production control required to properly meet these conditions, a new department was formed at Hafner headed by a co-ordinator.

Generally, the system is based on daily checks on three things: incoming yarn shipments, looms running, and quality control statistics. If prescheduled yarn shipments are not being met by suppliers, the yarn purchaser is charged with expediting deliveries.

The number of looms running is an indication of how production by style is progressing, and quality statistics indicate whether any of the production being counted on for shipment must be set aside because of sub-standard quality.

Expansion. Because of the success of this switch to heavyweight goods, Hafner Associates has set up in Canada a similar weaving installation to handle plastics.

The company's history in the past 5 years has been a story of withdrawing from one class of mill and growing up in another.

Textile Mill Cartons Win in 1955 Competition

Four textile manufacturing firms are utilizing cartons that received awards in the 1955 Folding Carton Competition in which "America's 100 Best Folding Cartons" were selected from a record breaking total of 6,782 entries — Interwoven Stocking Co., Manchester Knitted Fashions, Inc., Pepperell Manufacturing Co., and Chicopee Manufacturing Corp.

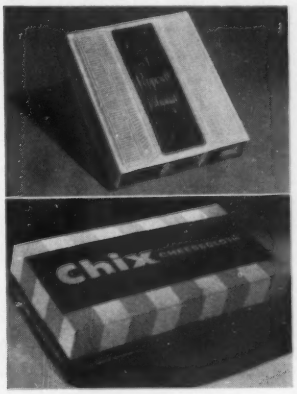
These "100 Best" award winning cartons, four of which are pictured here, were announced and displayed, along with all other entries in the Competition, during the recent annual meeting in Chicago of the Folding Paper Box Association of America, sponsor of the Competition.

The purpose of the competition is to stimulate improvement, quality, and creative thought in the production of folding paper cartons.

Taken into consideration by the judges in evaluating the entries were various technical aspects (printing, construction, quality, economy, etc.) and five general checking points: (1) protection of product; (2) display value; (3) merchandising value; (4) practicability; and (5) structural style.

FIRST AWARD for superiority of construction was won by this novel book style carton made by Robertson Paper Box Co., Inc., for Manchester Knitted Fashions. An amusing die-cut picture puzzle is incorporated on one of the panels for additional playtime enjoyment by the youngsters.

FIRST AWARD for display containers and Merit Award in the textiles classification were captured by this combination carton-display built by Alford Cartons for Interwoven Stocking Co.



MERIT AWARDS in the textiles classification were won by these two cartons. Upper photo: Blanket carton by Container Corp. of America for Pepperell; lower photo: cheesecloth carton by Robertson Paper Box Co., Inc., for Chicopee—length of this carton was kept at exactly 18" so that one or more folds of the cloth would determine the yardage required for the customer.

NOW THEIR WARP SPINNING COSTS 50% LESS

WARP SPINNING ROOM looked like this before modernization. Old group-driven frames were about 40 years old. The mill had 40,320 warp spindles, 2¾-inch gauge, with 1⅝-inch rings.

Spinning equipment

BEFORE . . . . .

Staff Prepared
EXCLUSIVE

A COMPLETELY replaced set of warp spinning frames along with installation of frame cleaners, humidification, air change, and a brightening-up program at the New Bedford Mill Division of the Hoosac Mills Corp. has, in addition to reducing costs, improved yarn and weave room quality to a significant extent.

Impact of the change can best be illustrated by some statistics. (1) ends stay up; current figure is 12 ends down per 1000 spindle hours, (2) warp yarn break strength has improved 15 per cent, and (3) weave room seconds are now less than 2 per cent.

Over-all costs in the warp spinning department were reduced approximately 50 per cent.

The $1 million program of replacements and additions was made while the spinning department was in operation. The mill, weaving chambrays, colored broadcloths, oxfords, and yarn dyed dress goods, produces 450,000 yards per week.

The 40,320 spindles that were replaced in Hoosac's warp spinning department dated back to the time the mill was started in 1909. All of these spindles were removed with the installation of 30,000 spindles of Whitin F-2 Super-Draft.

The Spinning. Cotton used is 1⅛-inch Strict Middling, all of which is combed and reduced to 2½-hank roving. Counts spun range from 40s through 50s.

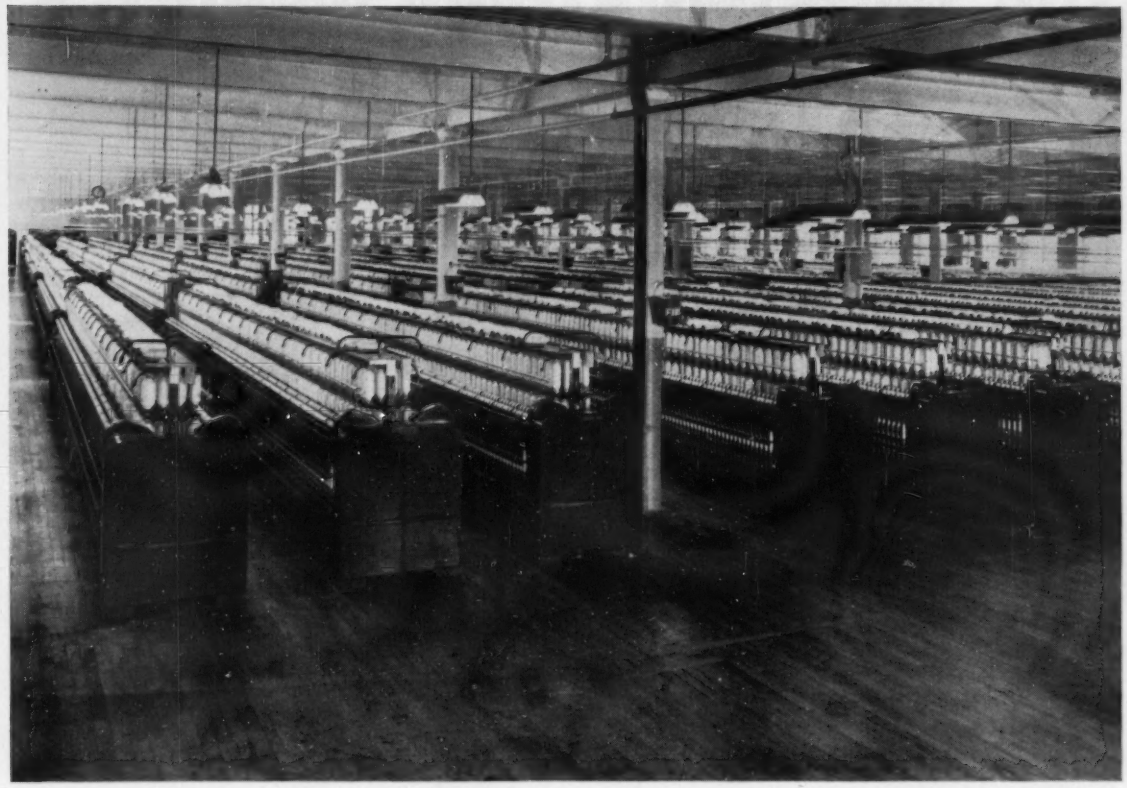
Because it is also part of the over-all quality picture, mention is made at this point of a simultaneous installation of 9 Whitin Super-Draft roving frames, conversion of 18 old frames to Super-Draft, and provision for rewinding all filling.

The 100 300-spindle Whitin F-2 frames are set up in 20 rows of 5 frames each. Spindle speed is 10,000 rpm. The frames are equipped for convertible warp or filling wind with a ring rail

modernization helps keep New England mill on top

. . . . . AFTER

MODERNIZED SPINNING ROOM has 100 Whitin F-2 Super-Draft frames with 30,000 warp spindles. Frames are 3¼-inch gauge with 1⅞-inch rings. Installation was accomplished with minimum loss of production.



★ **Ends down cut to 12 per 1000 spindle hours**

★ **Warp yarn strength increased 15%**

★ **Weave room seconds now less than 2%**

traverse of 8 inches. Ring size is 1⅞ inches. Drafts range from 32 to 37.5. All spinning is done on wooden tubes.

Cleaning. Each 2 rows of frames is equipped with a Parks-Cramer traveling cleaner system. Air current outlets are directed both at the spinning frame and the ceiling. The air distributor makes its cycle on the overhead track, encompassing 10 frames in 5 minutes.

This system is responsible for two quality functions at Hoosac: reduction of bunches, and keeping ceilings free of lint. The ceiling in this department has not been brushed down for a year.

Humidity. Humidity control in this department was brought about by providing both air-change and water vaporizing equipment. American Moistening Co. atomizers supply the humidification; humidistats are set at 55 per cent RH.

Since the heat generated from the 100 10-hp spinning frame motors is considerable, window fans with the capacity to completely change the air in the spinning room every 3 minutes were installed. This is made possible by the action of another system of vents which open by air pressure to allow warm air to flow out of the room.

Brightening-Up. To round out the modernization picture, three jobs were done. Designed to lend a psychological incentive to employee neatness, they consisted of painting the ceiling white, sealing the floor and keeping it lustrous, and installation of fluorescent lighting through the department.

With the Raper Autoleveller—

the worsted sliver weight is

Staff Interview

EXCLUSIVE

MILL EXPERIENCE in England with a new attachment for Bradford drawing equipment known as the Raper Autoleveller has been evaluated with results pointing to reduced waste, increased production, and improved yarn quality.

The device, manufactured by Prince-Smith & Stells, Ltd., and distributed in the United States by Atkinson Haserick & Co.,* has been used extensively in knitting yarn manufacture and to a lesser degree for weaving yarns in installations at 12 Yorkshire mills.

Key requisite of application of the pressure system to drawing equipment is that one Raper Autoleveller be installed per running end of sliver or slubbing; this dictates use on gill boxes of the single head, single delivery type.

The purpose of the unit is to deliver constant sliver and slubbing weight independent of variations in gill box and draw frame feeds. It does this within limits of ± 15 per cent variation in fed top sliver and ± 25 per cent in fed slubbing; in both cases the Autoleveller corrects these variations to within ± 1 per cent.

How It Works. Although the Autoleveller is included as standard equipment in the Raper drawing system, it is a self contained unit which can be attached to the feed end of a single head, single delivery gill box. To date the Autoleveller devised for draw boxes has not been installed as a changeover; application has been limited to inclusion of the evening device in the complete Raper draw box.

The Autoleveller measures the thickness of the material being fed, and mechanically regulates the draft to compensate for variations by changing the speed of the back rolls and fallers in gill boxes, and back rolls only of draw frames.

The accompanying diagram shows the method used for this control as applied to a gill box. The same principle is applied to a draw frame; the unit is located behind the normal front rollers of the machine and replaces the conventional back rollers and carriers.

When the measuring rolls detect a variation in the in-coming material that is in excess of the operating range (± 15 per cent for sliver, ± 25 per cent for slubbing), an electric detector stops the machine and lights a warning lamp. Variation is registered continuously on a graduated indicator. In the draw frame installations, an electrically operated front detector stops the machine if the slubbing breaks in the drafting zone.

The Autoleveller is adjusted for various input weights of sliver or slubbing by a screw setting. This setting adjusts the Autoleveller so that its zero point is calibrated to the input weight. The pointer on the graduated indicator is, with each setting, at zero.

How the Autoleveller Is Used. The control unit has been used in England in 4 applications:

1. To a fore finisher gill box in a set of Bradford combing using Noble combs and Bradford-type intersecting gills. This use corrects variations in sliver from the comb, compensates for sliver breakage and run-outs (within limits mentioned previously), eliminates weighing and balancing of cans of sliver, and compensates for weight changes in sliver when aprons are changed.

2. To a single head, single delivery can gill box of a conventional Bradford set of drawing. This first drawing operation usage is designed to even out top sliver variations. Where numerous doublings are normally employed in drawing, the value of the Autoleveller is not significant; but use of the unit on the can gill box will in some cases permit a reduction in doublings between this machine and reducing and roving. The Autoleveller will not improve short term variations in yarn, which are produced entirely in roving and spinning.

3. To a first operation in a high speed gill set. This use eliminates extra gillings often required to achieve better uniformity. Also, odd lengths of sliver, normally not used, may be run in with no danger of producing uneven sliver.

4. To a spindle draw box. The construction of the Autoleveller for this purpose is somewhat lighter than for gill boxes. The unit, designed to perform the same general functions described thus far, has been used only as an integral part of the Raper Autoleveller draw box. It is placed behind the normal front rolls of the box and replaces the conventional back rolls and carriers.

Applications In The U. S. At the time of preparing this account, no data covering installation in this country of the Autoleveller to conventional Bradford equipment was available.

Considerable pilot plant work, however, has been done on the Holdsworth Gill Reducer. In attaching the unit to the Gill Reducer at the Pawtucket, R. I., plant of the Holdsworth Gill Screw Co., Inc., variable drafting is accomplished solely through variable speed control of fallers.

Three case histories of the pilot work done with this application

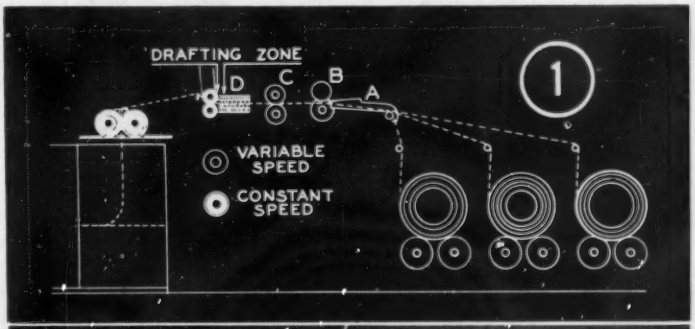
*See TEXTILE INDUSTRIES for December, 1954, pp. 85 and 87.

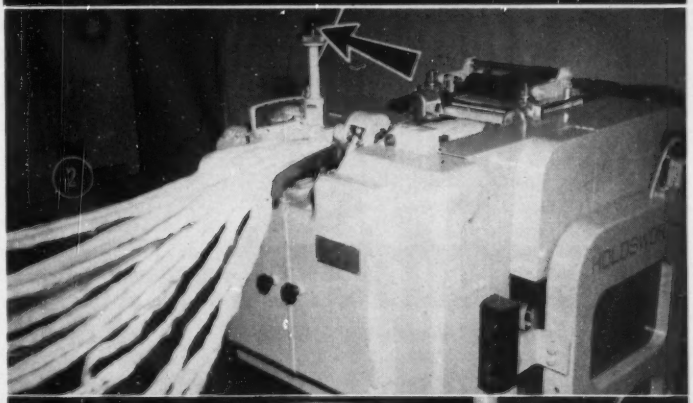
corrected automatically

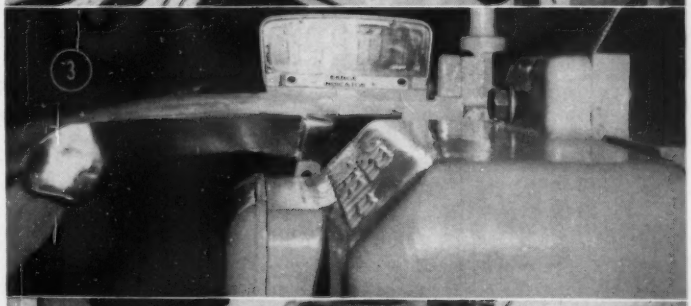
Experience in 12 English Mills

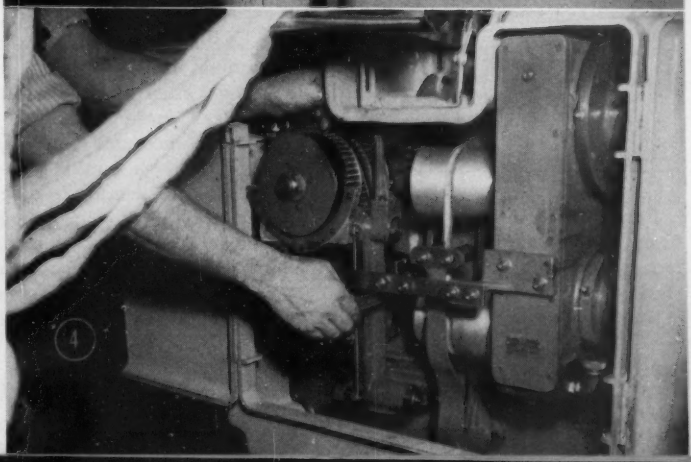
follow:

1. On 60-62s top (Saco - Lowell tester)
   Input unevenness—24.5%
   Doublings—6
   Draft—7.05
   Delivery—306-grain sliver
   Output unevenness—12.7%
2. On 62s top (Uster tester)
   Input unevenness—16.5%
   Doublings—7
   Draft—7
   Delivery—359-grain sliver
   Output unevenness—10.7%
3. On 64-70s top (Saco - Lowell tester)
   Input unevenness—25%
   Doublings—6
   Draft—6
   Delivery—218-grain sliver
   Output unevenness—12.8%.









1. Diagram of the Autoleveller shows sliver balls (at right) being fed to a condensing funnel A, then to the measuring rolls B, to the back rolls C, and to the fallers D. This example is an application on a gill box. The rolls B measure the cross sectional area of the sliver and record thickness variations automatically as a pattern line in a relay mechanism. This mechanism retains the recorded pattern line until the particular point being measured reaches a distance about one-half the mean fiber length behind rolls B. The pattern line is then transferred to a transmitter unit which controls a variable speed mechanism. This device corrects the draft by varying the speed of B, C, and D.

2. Entire unit is self-contained and can be applied to any single delivery gill box. Units of a lighter construction are applied also to spindle draw boxes. Application shown is to a Holdsworth Gill Reducer. Note warning lamp (arrow); this lights when the operating range of the machine is exceeded and the machine stops.

3. A graduated indicator continuously records variations of incoming material as read by the measuring rolls.

4. Adjustments are made for different input weights by a screw setting; the setting is made so that the "zero" of the unit is calibrated to the input top weight. When this is accomplished the indicator on the graduated scale reads zero.

FEBRUARY 14: Joe's Valentine present—he was made the new supervisor.

JULY 4: Joe won his independence—he failed to make the grade and was fired.

Treatment and care of Supervisors

By Richard C. Oberdahn
*Industrial Relations Advisor**
National Association of Wool Manufacturers

EXCLUSIVE

HEREWITH some excerpts from the diary of a woolen mill:

February 10. Joe Blough, a loom fixer at Wemakall Woolen Mills, regretted to learn that his weave shed supervisor had passed on.

Management, although sorry to hear of this death, felt he ran his department fairly well, but had a lot of personnel grievances and all new ideas were accepted with great reluctance and opposition. It was felt that the unhappy event might prove a blessing in disguise. During his last 10 years of service he had not been what they wanted, but they had refrained from taking any action that might "hurt his feelings." After all, he had been with them 50 years and the weave "boss" for 25 years, during which time he had kept a black book record on every employee action and, either in his head or on scraps of paper, had all the technical knowledge of the weaving operation.

February 14. Mr. Big called in Joe Blough and gave him a Valentine present—he was made the new supervisor. Why? After all, he had been a good weaver, then a good fixer. Oh, yes, Mr. Big told Joe, he would carry on with his duties as loom fixer until he had proved himself competent to handle the department and would be given an increase in salary at that time.

So Joe Blough, in a H - - - of a fog, went out into the shop trying to do two jobs. No one had told the employees that he was the new Supervisor, and his first encounters were typical ones—"When did you make yourself boss?"—"I should have had that job," or "What makes you think you can take old Bill's place?" And last, but not least, no one told him what to do.

July 4. Joe Blough won his independence. He did not make the grade and was fired. The company lost a good loom fixer.

Sounds funny, but just think back and I am sure you know of many cases that parallel the case of Joe Blough. How many workers have been promoted to supervisors without knowledge or training, with no limits of authority defined, and no increase in salary given? (But with a great many added responsibilities.)

How many times have men been promoted only to find that the mill had lost a good operative and had gained a poor supervisor?

What care has been given to the selection of a supervisor; does the best production employee always make the best supervisor?

What training is given the newly promoted supervisor now that he is part of management? Does he know how to handle help, the company policies, practices and procedures, the responsibilities held in his trust, the limits of his authority, when and where to go

*On leave.

HOW TO SELECT A SUPERVISOR? No method can insure proper selection unless management knows what it is looking for.

THE CANDIDATE SELECTED should be given time to study the background of his job: his responsibilities, company policies, and cooperation with other departments.

ATTENDANCE at industry shows, technical meetings, and supervisors' seminars is an important part of on-the-job training.

with different problems, the background and capabilities of all the employees under his supervision?

If not, the mill management will never get the maximum out of the supervisor.

One woolen mill with about 400 employees has a capital investment of $3 million, or about $7,500 per employee. If the supervisor has charge of 50 employees he is responsible for $375,000 of capital investment. Does this supervisor receive treatment and care in proportion to his responsibilities?

A famous advertising slogan reads like this: "Quality of product is essential to continuing success." This is true in your sales, and equally true in your executive staff, of which a supervisor is an important part. "Quality of supervisor is essential to continuing success."

We all know that every mill executive expects his supervisor to produce the most cloth of the best quality at the lowest cost and maintain the best employer-employee relations.

How can mills assure themselves that they can secure supervisors who can closely approximate the above requirements?

Here is the formula:

1. Proper selection.
2. Pre-training.
3. On-job training.
4. Proper incentive.

Let's examine these four points in detail.

Proper Selection. Some mills use psychological testing methods. Some use interviews, others select the best production operatives, and still others select on the basis of seniority. It has been proved that regardless of what method is used none can assure proper selection unless management really knows for what it is selecting.

Prior to any selection, a good all-inclusive job analysis should be made. Such an analysis should include all duties, responsibilities, and authority of the supervisory position. It should outline broad policies, practices, and procedures of the duties to be performed and the responsibilities to be assumed, including quantity and quality standards to be met. It should describe the limits of authority on expenditures, control of employees, and manufacturing procedure.

After the analysis has been made, then interviewing, psychological testing program, and other selection methods can be applied objectively. Many employees would eliminate themselves as an applicant to a supervisory position if they actually knew what is expected and see it in writing. Many executives would also eliminate many candidates if they had before them an analysis showing what they expected of a supervisor.

How can we obtain a supervisory job analysis quickly and at the lowest cost? The answer is simple. Have all your present supervisors write an analysis of their own jobs, setting forth the approximate time spent on each item. It will be interesting to note how some of your supervisors spend so much time on details that could be delegated or eliminated, while others spend very little time on these same details.

After the superintendent has reviewed this analysis with the supervisor, then a mill executive, the superintendent, and the supervisor in question should rewrite the analysis, excluding all overlapping interdepartmental functions and including all functions necessary in the performance of the task. Then all interested parties will know exactly what is expected.

Pre-training. After the candidate is selected, he should be given time to study the supervisory job analysis; be told in detail of the company's personnel policies, practices, and procedures (be acquainted with the details of union contract, if any); be advised of the inter-departmental operations; be permitted to know his responsibilities and limits of authority; be advised as to lines of supervision, and to whom he can go when unexpected questions come up.

Finally, he should be officially introduced in an adequate manner as the supervisor to both the operatives and allied supervisors.

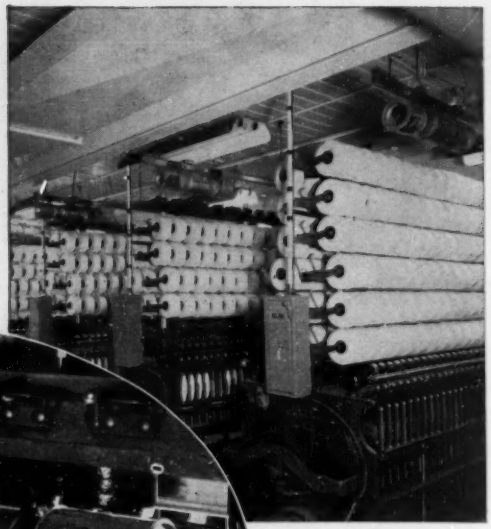
On-Job Training. This appears to be a most neglected item. New fabrics, yarns, and machinery are constantly being introduced, as well as personnel policies being changed and new union contracts negotiated.

All supervisors should be acquainted with every innovation, regardless of whether or not the actual change affects a particular department. In some direct or indirect manner it does affect every supervisor. It is even advantageous to inform all supervisors of contemplated changes so that they can

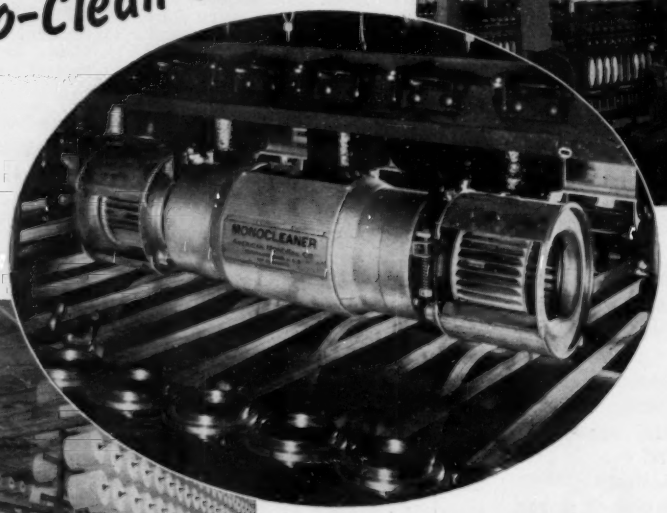
AMERICAN MONORAIL

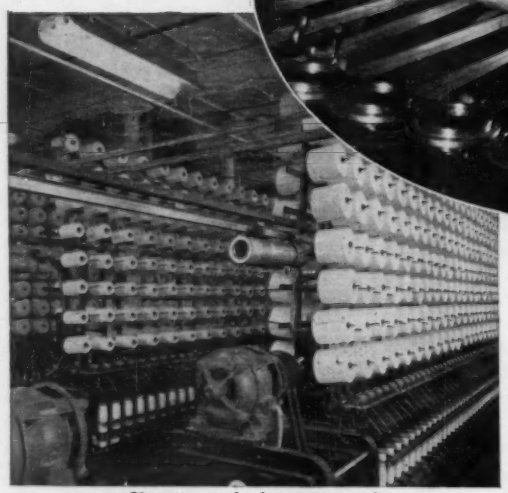
MONOCLEANER

for Hard-to-Clean Areas

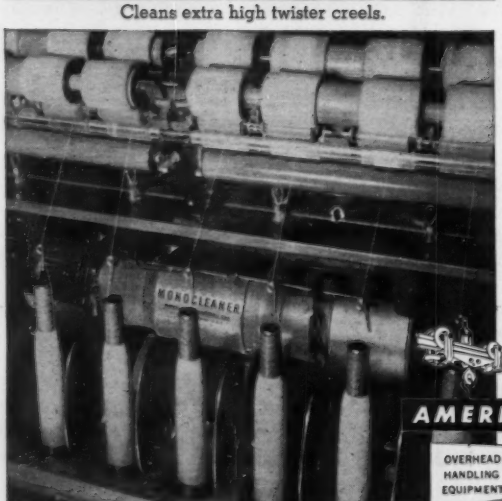


Cleans ceilings under low headroom conditions.





Cleans extra high twister creels.



Cleans frames with Pneumafil.

- The American MonoRail MonoCleaner originally designed for under frame cleaning is now being used for many other applications in hard-to-clean areas. For instance, it now successfully cleans:

. . . . low headroom ceiling areas.
. . . . extremely high twister creels.
. . . . under high speed winders.
. . . . under frames with Pneumafil.

If you have a "hard-to-clean area" why not investigate the American MonoRail MonoCleaner? An American MonoRail engineer will be glad to consult with you.

Write for Bulletin UC-1.
It tells all the advantages of the American MonoRail MonoCleaner.

AMERICAN OVERHEAD HANDLING EQUIPMENT

AMERICAN MONORAIL COMPANY
13106 ATHENS AVENUE • CLEVELAND 7, OHIO

prepare themselves by reading all available material that might be helpful.

Keep the supervisors informed of business conditions and, in the event of lay-offs, advise them in advance. Above all, never permit a supervisor to obtain information on forthcoming events from either the union or his employees. This undermines supervisory morale more rapidly than any other incident. And it does happen in our industry.

Proper Incentive. A supervisor should be paid what he is worth, and there is no room for a poor supervisor regardless of how low a salary he receives. In today's highly competitive situation, the best supervisor is the cheapest one, regardless of how much he is paid.

There is no substitute for a quality supervisor properly selected and trained and paid in a manner which will provide the proper incentive.

A quality supervisor is now a person who knows management requirements, how to handle personnel, and the technical aspects of the job.

Where do you get good supervisors? You either hire them on the open market or train them yourselves. Each method has advantages and disadvantages.

If you hire them from the open market and they are good you save training expense and bring new ideas into the mill. A supervisor hired from the outside will be in a better position to evaluate employees on ability, rather than permitting old personalities to influence decisions. A big advantage, should this man not work out, is that he can be dismissed without the feeling that you must retain him because of long service.

Disadvantages in such method are that it may reduce the morale of employees, who may well feel there is no incentive for them to work harder as the chances for promotion are eliminated when you hire all supervisors from the outside.

Another disadvantage is the inability of the outsider to really know his people and their abilities. Until he does become acquainted, he makes errors in judgment.

There are also advantages and disadvantages in selecting a man from the working force to become a supervisor. The advantages are, but are not limited to, the fact that upgrading from within aids the morale within the mill and that such a supervisor knows your work methods, standards, etc. You should have a good indication of his personality which will help avoid personality clashes.

Some of the disadvantages: it will cost you money to train him, long association with an operative may tend to have him make his decisions on the basis of his operator experience rather than from a management standpoint,

A SUPERVISOR should be paid what he is worth—the best supervisor is the one who is most profitable to the mill, no matter what he costs.

and he may unconsciously tend to play favorites.

Last, but not least—what happens to a supervisor who has been promoted from within and fails to make the grade? Do you demote him and create a future personnel problem? Do you dismiss him from the company (remember, he has served you well as an operator), or do you just put up with him? (From my observation, the mill just puts up with him unless he's *very* bad. As a result many mills have a number of supervisors whom they merely tolerate.)

How many executives give all these factors thought and consideration prior to filling a supervisory vacancy?

The stronger supervisory staff you have the better chance you have to be competitive. Remember the case cited previously—that a supervisor may be responsible for the number of employees under his supervision times $7,500 of capital invested. That's a lot of money to be put in the trust of "just any good worker." He must have good supervisory potential.

Many mills have promoted to supervisory positions their best operatives, without giving too much thought to the personality and management requirements of the job.

Some mills do recognize the importance of supervision. We point to the large number of mills training their supervisors by sending them to overseers' technical meetings, supervisors' seminars, the American Textile Machinery Exhibition, and visits to other mills. The high esteem some supervisors hold of their own management is the result.

I have worked in the metal trades industry, the chemical business, and with an airline for twenty years prior to coming into the woolen and worsted industry more than six years ago. In all these twenty-five-plus years I never saw an industry where titles of supervision, their responsibilities and authority, varied as much as they do in wool textiles. One mill calls a man an overseer—he is paid on an hourly basis and can make no decisions without consultation, while the other extreme has an overseer who is completely responsible and has the authority for an entire operation (for example, weaving) on all three shifts. This overseer has full responsibility for floor layout, methods, scheduling raw materials and expense items, personnel, and can make outside purchases within a predetermined budget.

This article has placed much importance on the supervisors. How important this man is depends entirely on management alone. Many mills have recognized the industrial revolution that is taking place within our industry. These mills have kept abreast of the times with their development in the field of supervision; others have not and are still operating in the old traditional manner. Sooner or later the recognition that there is no substitute for quality of supervision must be realized. We hope this recognition does not come too late.

PREBOARDING • DYEING • POSTBOARDING

1 machine does all 3

Staff Prepared
EXCLUSIVE

THE CONVENTIONAL finishing processes used on nylon hosiery normally include preboarding, dyeing, and postboarding or drying performed in three separate stages. This requires from three to four hours for scouring, dyeing, and finish application, depending on the system of dyeing and boarding used. In addition, such "nature-of-the-beast" points as lot-to-lot color variations, variations between multi- and monofilament sections of the stocking, wrinkling during dyeing, and handling defects are some of the difficulties encountered.

In operation at the Permatone Hosiery Co., Clementon, N. J., is a single unit, occupying 66 square feet, which is designed to remove the guesswork factors producing these variables through combination of the three stages in one, all automatically activated within a time interval of 8 minutes. The machine, built by Dyotherm Corp., has a capacity of 125 dozen pairs of hose per 8-hour shift, with excellent reproducibility of shade and finish from lot to lot.

The Problems. Traditional procedures have certain drawbacks. Because of the human factors involved, reproducibility from one dye lot to the next is a headache; these factors include insensitive measuring of chemicals, inconsistencies in dyeing time from one lot to the next, inaccurate temperature control, and errors in making up proper dye bath volumes.

Another difficulty lies in the different dye affinity between multifilament and monofilament nylon. When adding dye manually to a dyebath to build up to a shade match, there is a danger that the foot, heel, and welt multifilament components will dye lighter than the monofilament leg if corrections are prolonged. This often results in either unsatisfactory first quality work or requires stripping and redyeing. Generally, a shade sample can be matched to either the multifilament parts *or* the monofilament parts of the stocking; rarely are manual controls accu-

Words and Pictures Give Details of the Dyotherm Process

(Numbers below correspond to those on illustration on opposite page)

PREPARATION

1. Dye concentrate is mixed with water and is metered to one of the two storage tanks. The quantity is determined by the size of the dye lot, but sufficient quantity can be stored in either tank for 8-hour operation.

2. Tanks are switched in and out of use by these selector valves.

3. Solution in storage tanks is under mild agitation at 110 to 120 F.

4. The control panel consists of a series of timers for manual operation of cycle components (upper section), and an electronic temperature controller for dyebath temperature (lower box on panel). Co-inventor Harry Brewin examines panel. Manual controls are usually operated only for special reasons, such as for flushing machine.

5. Leg forms are fitted to form wheels; there are two form wheels mounted on a sliding table. Each wheel holds two dozen stockings.

THE CYCLE

6. Operator pushes button to start cycle. There is one such button at each end of the machine.

7. The table shifts, bringing the form wheel filled with grey hosiery into the dyeing position (photo shows this wheel in motion about half way to the dyeing position).

8. Pressure bell closes on the form wheel in the dyeing position, is held down hydraulically by a series of pistons **(9)**.

10. This metering tank releases a predetermined charge of dyestuff solution (which it has received from the storage tank) into the pressure chamber.

11. The circulating system starts to operate. The charge of dyestuff solution in the base of the pressure chamber is heated by a closed steam coil. The heated liquid is pumped to the top of the chamber through the tube and flexible coil shown here. It enters the chamber and is forced through the nozzles of a rotating spray head. The liquor is thus sprayed on the stockings boarded on the form wheel in the chamber, collecting again at the base of the chamber. After circulating like this for 4½ minutes, the dye solution is drained and the bell chamber returned to atmospheric pressure. The stockings, now preboarded and dyed, are then dried by air brought into the chamber by a blower and heated by movement through the steam coil in the well.

12. The dogs unlock and the bell rises, completing the cycle.

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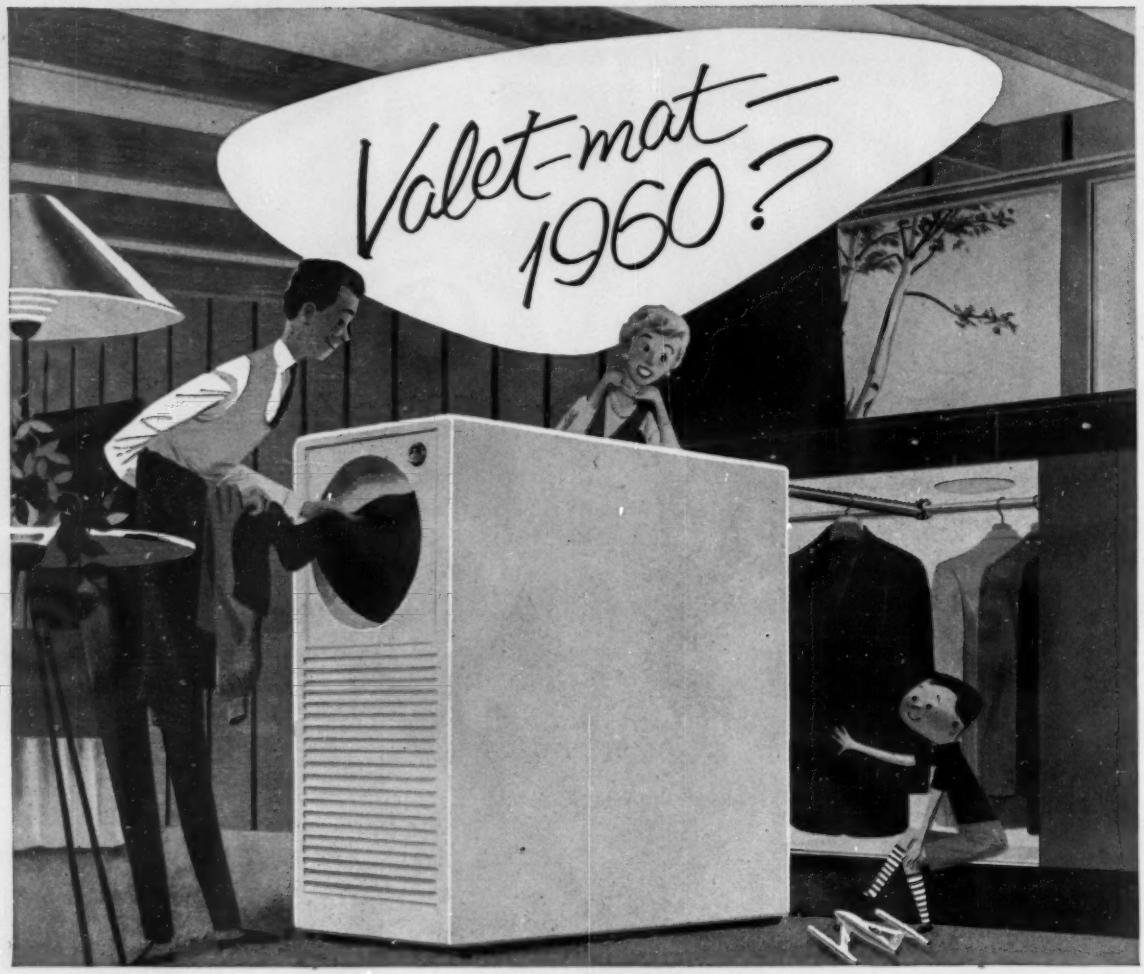
NEW DEPARTURES OF TOMORROW



Versatile, easy-to-operate machines that take the backache out of "ironing day" are a housewife's dream come true. And manufacturer after manufacturer has called on New Departure for its ball bearings.

It could well be that in less than a decade a compact new appliance for the home will clean and press a suit, coat or dress in seconds.

Of course, such a machine is yet to be developed. But one solid fact: when the "Valet-mat" *does* arrive, it will probably be New Departure ball bearings that keep it operating smoothly and efficiently.

Today, practically any type of home-service product you can name is New Departure-equipped. So, when your thoughts turn to new departures of tomorrow . . . think of New Departure—the company that makes the great forward strides in ball bearing design and manufacturing.

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT

NEW DEPARTURE
BALL BEARINGS

NOTHING ROLLS LIKE A BALL

rate enough to match to both.

Where hosiery is dyed in nets, wrinkles and creases can form; further, multiple handling of stockings tends to cause picks, snags, and soils.

The Machine. Designed to overcome these problems, the unit can be described generally as follows: a 2-dozen load is boarded onto aluminum forms on a form wheel while a second wheel is in the dyeing chamber. At the start of each cycle, the first wheel moves into position below the dyeing chamber while the processed stockings on the second wheel move to the opposite side of the machine.

A bell, forming the pressure dyeing chamber, lowers and locks into the base of the machine, surrounding the unprocessed stockings. During the next 4½ minutes, the dye liquor circulates under pressure at elevated temperatures serving to both heat set and dye the stockings.

After this, the dyebath is dropped, the pressure is exhausted from the chamber, and hot air is circulated within to dry or postboard the hose. This done, the bell raises and the machine stops. Finished stockings are stripped from the forms and loaded with a new grey batch and the machine is ready for a new cycle.

Except for putting grey stockings on the forms, stripping the finished ones from them, and pushing a button to start the cycle, the machine is set to perform all of the aforesaid steps automatically. Details of how the machine works are covered in accompanying illustrations [p. 119].

The Conditions. Hosiery being dyed at Permatone is 15 and 30 denier in a range of 51, 60, and 66 gauge. The dyebath is made up of a special scouring agent, disperse acetate dyestuffs, and finishing agents. Preboarding and dyeing are done at high temperatures under pressure, and drying is accomplished by injecting hot air at atmospheric pressure. Each dyeing takes but a few gallons of dyebath.

The Results. Because an automatically measured charge of dyebath is fed to the pressure dye chamber in the same way during each successive cycle, because the time cycle is the same during each dyeing, and because temperatures are controllable through instrumentation to within ± 1°F, reproducibility in the Dyotherm unit at Permatone is successful on a 100 per cent basis.

Because the finish is applied at high temperature in the same way each time, it is consistent, more permanent than normally produced at the mill, and the hosiery so processed has a soft character. Wear tests indicate that durability is somewhat higher than conventionally processed hosiery. Penetration of dyestuff is reported as being improved, basing the evaluation on microscopic cross sectional examination.

Attention. The manual operations described during the production cycle are performed by the operator who boards the stockings. Supplementary manual operations, handled by the dyer, are limited to preparing the dye solutions, feeding them into the storage tanks, and changing of color by switching tanks.

There are two storage tanks; each usually holds enough dye liquor to last a full shift and the dyer switches circulation from one tank to another by a selector valve. The latter cycle steps are manually controlled from a panel control board to assist in these functions. Temperatures are also set on the board. It is said that one dyer or technician can supervise a number of units.

The Future. It is felt by the mill that most practical use of the Dyotherm machine will be found in placing two units side-by-side for tending and servicing by the same personnel. Machine refinements planned include making the form wheels removable so that forms can be easily changed from one size to another as a unit, making it unnecessary to change forms individually.

Recommended Procedures for Bleaching 100% Acrilan

Following is the revised and latest recommendation of The Chemstrand Corp. for the bleaching of 100% Acrilan:

The goods are pre-scoured in a bath containing 0.25 grams per liter non-ionic detergent and 0.25 grams per liter TSPP for 20 minutes at 160 F and the bath is then dropped.

The goods are then pretreated in 4 grams per liter sulfuric acid at 200-205 F for 25 minutes. The fabric is cooled down and the bath dropped but rinsing is not necessary.

The goods are then bleached in a bath of 1 gram per liter Textone and 0.5 grams per liter sulfuric acid at a temperature of 160 F. After bleaching for 10 minutes, an addition of .25 grams per liter Textone is made and the bleaching continued for an additional 20 minutes, after which the bath is dropped and the fabric well rinsed.

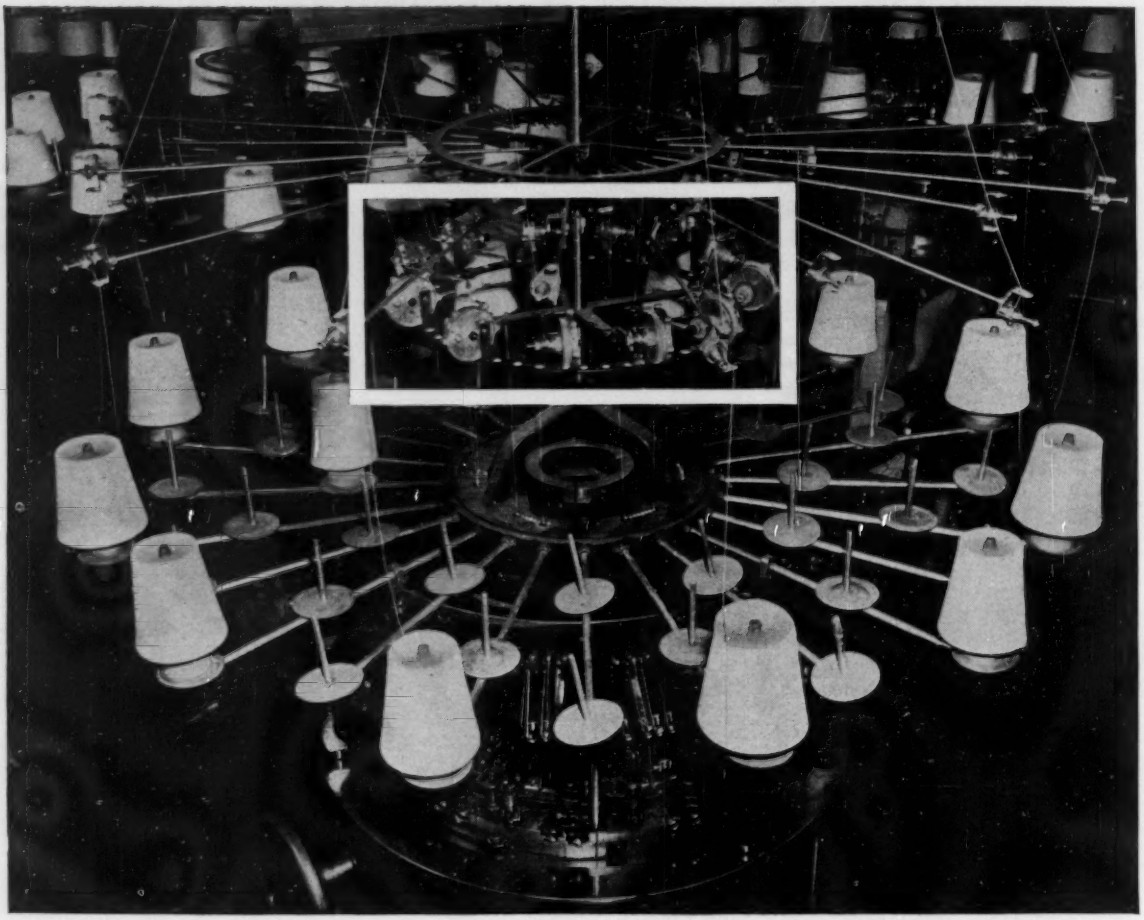
The goods are then antichlored in 1 gram per liter sodium bisulfite at 140 F for 20 minutes. The goods are then rinsed conventionally.

If the addition of an optical white is deemed necessary, Artic White N, as manufactured by Hilton-Davis, to the extent of 0.075% applied from TSPP at a pH of 10.5 for 20 minutes at 140 F, has been found to be of considerable advantage. The use of this optical bleach in strengths above 0.075% can contribute materially toward decreased lightfastness.

In this bleaching process, the following points should be noted.

(1) The use of sulfuric acid in the amounts recommended is mandatory for the obtaining of a satisfactory white.

(2) There is no advantage in using higher amounts of Textone or higher temperatures or greater lengths of time. For instance, should the bleaching be carried out as is conventional for acrylics at this time, unsatisfactory results will be obtained.



"ORLON"*–how it's tension-controlled at the Hudson County Knitting Mills

The Hudson County Knitting Mills, who make sweaters of DuPont "Orlon", recently installed Kidde Standard Compensators — one for each yarn feed — on their Jacquard Knitting Machines.

Mr. William A. Zeug of Hudson County Knitting Mills reports, "Since installing these Kidde Compensators we can control fabric widths much more accurately. We have no more uneven stitches due to irregular tension, no more back-winding of cones and less frequent stitch cam adjustment."

Reports like this, while amazing, are not unusual. Because Kidde Compensators, used by more than 500 leading textile mills throughout the nation, cut costs and produce a better product wherever they are installed! They can do the same for *you*. For more information on Kidde Compensators, write Kidde today.

* *A DuPont acrylic fibre*

OTHER APPLICATIONS!

Kidde Standard Compensators, installed on Circular Knitting Machines will also solve tension problems in the running of rubber yarns, stretch-type nylon yarns, and most spun and continuous filament synthetic yarns!

Kidde (K Kidde)

The word 'Kidde' and the Kidde seal are trademarks of Walter Kidde & Company, Inc.

Walter Kidde & Company, Inc.
590 Main Street, Belleville 9, New Jersey

Acrilan brings a new kind of luxury touch to sweaters and Jersey

A lot of knitwear thinking is being changed by Acrilan acrylic fiber. To sweaters it brings a new luxurious softness, warmth that's practically weightless, greater dimensional stability and less pilling. For jersey it offers a hand never before possible in a synthetic. In both cases Acrilan's easier dyeability permits a full range of rich, fresh colors . . . and Acrilan's performance outpaces any other fiber you've known. That's why before the year's end you'll be seeing knitwear of Acrilan in the wardrobes of all America.

ACRILAN

Acrilan . . . the *sweater fiber for '55 · Acrilan . . . the Jersey all America's been waiting for!*

THE CHEMSTRAND CORPORATION GENERAL SALES OFFICES: 350 FIFTH AVENUE, NEW YORK 1, N. Y.
PLANTS: ACRILAN® ACRYLIC FIBER — Decatur, Alabama; CHEMSTRAND NYLON — Pensacola, Florida
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Making

At Dorset Knitwear the key to first quality is T. L. C. (tender, loving care), especially when

Staff Prepared
EXCLUSIVE

THE PLANT of Dorset Knitwear, Ltd., Brooklyn, N. Y., is producing, from a 2/27 worsted count Vicara-nylon blend, their trademarked "Vicamere" sweaters. The plant, with a capacity to make up to 30,000 garments a week, has developed in its knitting, cutting, and assembly operation a number of fine points designed to make a better product. "We have no panacea," says company head Morton Milman, "but we do give this thing T.L.C. (tender, loving care)."

Yarn Preparation. Because the circular knitted Vicamere does not shrink up and hide defects to any great extent in wet finishing, all sources of fabric irregularities must be closely checked.

The goods are quite sensitive to twist variation; a ¼-turn variation shows up as a streak. To guard against this, each separate case (about 200 lb) of yarn is spot checked for twist and all the Vicamere yarn is purchased from one reliable source to prevent spinner-to-spinner variation.

Tension, another source of defects if not constant and low in cone pull-off, is controlled by backwinding. The ballooning of yarn being wound tends to average out twist and the precision cone winding that results permits free pull-off. The latter precaution is particularly important in preventing tight stitches due to uneven and high tension pull-off.

Knitting. The machine complement at Dorset includes (besides 5 Brinton and 2 Stafford & Holt machines, for boleros, batwing pullovers, and other jersey cloth styles) 14 twelve-feed Jacquard circular machines, all 30 inches in diameter but ranging from 11½ to 16 cut, corresponding to 17¼ to 24 gauge. Inspection for freedom from defects, as the cloth is being knitted and while the machines are running, is made easier by the installation of a fluorescent tube above the take-up bars in each machine.

Fullness of size with consistency of fabric is the basis upon which particular cut machines are selected for particular jobs. Consistency of fabric can be maintained only by having substantially the same number of wales and courses per inch in the finished cloth of all bodies and sleeves of all sizes of the same style or related styles (such as the classic cardigan and pullover) of the same fiber. But the required widths of finished cloth vary considerably between sleeve cloth and body cloth and among the different sizes and styles of the bodies.

For instance, two size-38 cardigan bodies, or one size-36 and one size-40, require 75 inches of finished cloth; two size-34 cardigan bodies, 69 inches; one size-34 and one size-40 pullover body, or one size-36 and one size-38, 72 inches; and five full-width (6 inches after sewing) sleeves, 65 inches of finished cloth.

Knitting the two size-38 cardigan bodies (or one size-36 and one size-40) on a 13¼-cut machine, yields the necessary 75 inches of finished cloth with almost exactly 16½ wales per inch; i.e., 1234 (working needles) ÷ 75 (inches of cloth) = 16.45 wales per inch. In the same manner, a 12¾-cut machine yields 72 inches of cloth for the pullover bodies, with exactly 16.47 wales per inch; a 12¼-cut machine yields 69 inches of cloth for the two size-34 cardigan bodies, with exactly 16.49 wales per inch, and the 11½-cut machines yield 65 inches of cloth for five sleeves with exactly 16.43 wales per inch. The average variation on the 4 different widths of cloth is therefore only 3 hundredths of a wale per inch, which is so negligible as to be illusory.

In conformity with such tight controls of size and stitch, a yardstick is never used to check off-machine goods for width. Instead, measurement is interpolated from wales per inch, counted with a glass.

Trimming for collars is provided on two 12-cut V-bed Stoll machines (60 inch), four collars at a time.

Machines are maintained on a regular basis. One machine is stripped down and cleaned each week.

Dyeing. Packing units of 25 dozen each are sent to the dyer; all of Dorset's dyeing is done on commission, with close liaison between knitter and dyer. A precaution exercised to avoid pilling is the elimination of tumbling from all wet finishing procedures.

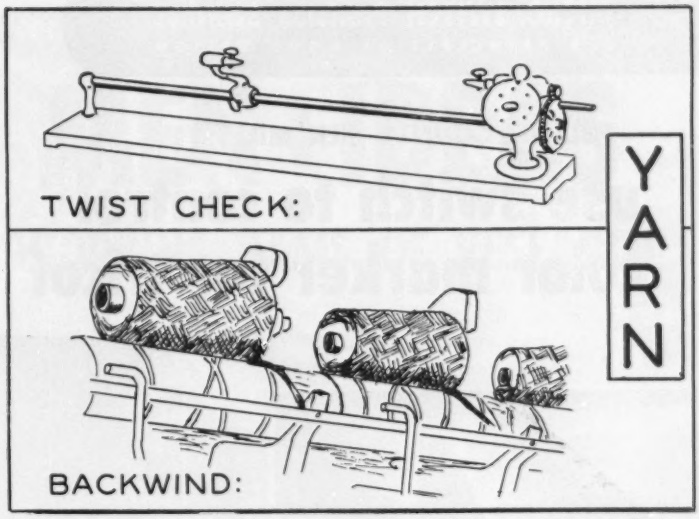
Cutting. Understeaming, rather than calendering, is done to goods in preparation for cutting in order to relax the goods properly, avoiding distortions and ultimately arriving at true sweater sizes. After steaming, the goods are given the extra operation of re-laying to insure that the plies are in alignment. This eliminates the need for cutters to handle the layers.

Three precautions are taken in cutting to improve quality: (1) the relaid plies stand at least 12 hours before cutting to permit complete relaxation to natural shape, (2) the

parts are cut "on the needle," eliminating poor appearance of an angle cut, and (3) cloth patterns rather than paper ones are used to avoid slippage.

Looping. Collars are P-looped onto bodies of the Vicamere sweaters on a 14-cut looper. To provide fullness and elasticity in the collar, a good margin of body is left between the turned down and joined edge of the trimming and its (the body's) edge. After looping, the collar is tested by removing one course from it to check for dropped stitches. Finally, the collar is trimmed down to two needles at the collar joining.

Assembly. 40/3 thread is used



Sweaters of Vicara-Nylon

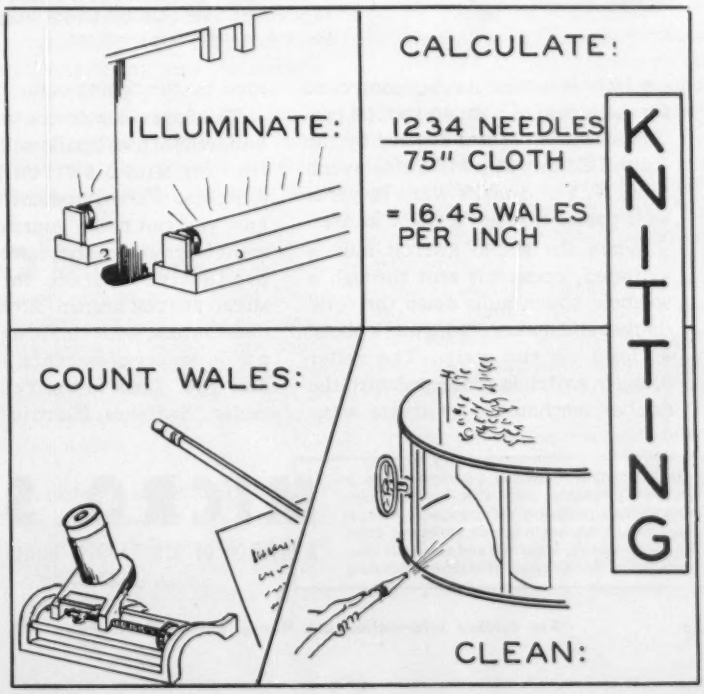
for all seaming by Dorset; the Merrow machine chain is tested four or five times a day to prevent cracking. This has eliminated defects from this source since the check was started two years ago. Knives are removed from Merrow machines and sharpened twice or three times a week.

In sewing ribbon to cardigan fronts, two requirements are set up: (1) sewing must be done on the needle, and (2) the ribbon is sewn on after having been measured to the body. Sewing is done on one ribbon edge only. All ribbon is 100 per cent nylon, preshrunk to avoid cockling in pressing.

Checking Finished Sweaters. Starting with the finishers, the Vicamere sweaters are checked for any kind of a defect other than those that had been screened out previously. The finishers pull seaming ends back into the sweater so that they are invisible, and if their inspection leaves any doubt, management is called to check. This procedure is also followed by the pressers, and finally by the official examiners and folders who pack the sweaters into the boxes.

Based on rejection of sweaters for the slightest cause, the salvage value of such rejects is high. Dorset's seconds bring a price near to production costs and the quality of the firsts is not in doubt.

Because the Vicamere cloth is thoroughly preshrunk in wet processing and quick drying, then is understeamed and completely relaxed into natural shape before cutting, because it is knitted to size and is never stretched or distorted in pressing, the sweaters will not shrink, stretch, or sag out of shape.



MICRO SWITCH Precision Switches
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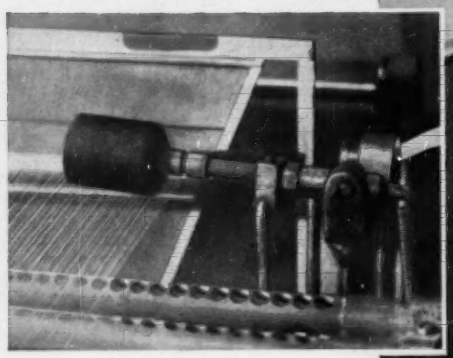
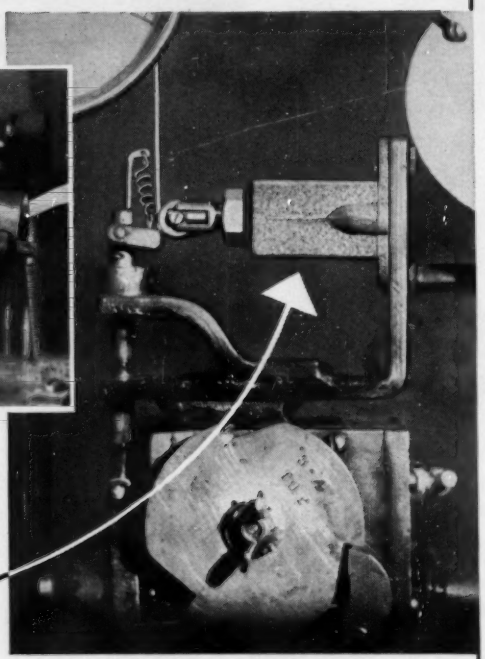
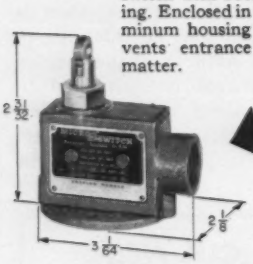
FULTON COUNTY SILK MILLS

use switch to control color marker for tricot





Roller plunger actuated switch with bottom mounting. Enclosed in sturdy aluminum housing which prevents entrance of foreign matter.



Roller plunger type MICRO SWITCH unit is connected to pawl with levers. Dauber (inset) drops to marking position as solenoid is energized.

• Here is a color dauber controlled by the action of a MICRO SWITCH precision switch. It was devised by the Fulton County Silk Mills of Gloversville, N. Y., to mark warp in yards as it passes through a tricot knitter.

When the MICRO SWITCH unit is actuated, current is sent through a solenoid which pulls down the color dauber and makes a color mark about 4" long on the warp. The roller plunger switch is connected with the dauber mechanism by levers actuated by the timing cam.

This ingenious device is typical of hundreds of uses textile mill operators find for MICRO SWITCH precision switches. For competent advice on how you can make your mill equipment more automatic, safer and more productive contact the nearest MICRO SWITCH branch. MICRO SWITCH distributors, with complete stocks of a wide variety of switches, are located near you. Look in the Yellow Pages under "Switches, Electric."

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as carriage movement controls
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to prevent needle breakage
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to automatically eject unfilled quills
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to stop motor when gear box is opened
•
to control position of pressure roll on warper
•
to control tension on cloth measuring machine
•
as thread breakage detectors
•
to control cloth position as web unrolls
•
to position clamps on cloth stretching machine
•
as thread run out detector on loom shuttles
•
as selvedge build-up control
•
as fabric thickness detectors
•
and many other textile applications

MICRO SWITCH provides a complete line of extremely reliable, small-size, high-capacity, snap-action precision switches and mercury switches. Available in a wide variety of sizes, shapes, weights, actuators and electrical characteristics. For all types of electrical controls.

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Staff Report

MEN+IDEAS

WORKING BASIS OF RESEARCH

Textile Research Institute members told during 25th annual meeting in New York

IN OPENING the 25th annual meeting of the Textile Research Institute held in New York March 10 and 11, Milton Harris, meeting committee chairman, stated that the working basis of research is a combination of men and ideas. In launching the diversified Silver Anniversary program of the Institute, Dr. Harris pointed to papers scheduled which were of leading significance to the textile industry: Automation, and Operations Research.

Highlights of these and other topics discussed in the meeting are covered in this report.

HIGHLIGHTS

Automation requires product rethinking and redesign for textile mills.

Strategy and tactics for operations research.

Studies on an anti-soiling finish for carpets.

Automation. A new industrial age is dawning for the manufacturer in which we are leaving the era of push button controls for automatic machinery, and entering a period of self-pushing buttons, according to John Diebold, editor *Automatic Control*. This speaker observed that a great future lies in automation, which will result in new products, new processes, new costs, new schedules, and new merchandising and sales techniques.

Mr. Diebold cautioned against three common misconceptions concerning automation: it is not mere mechanization, it is not a robot monster, nor is it a cure-all.

The feed-back type of automation was described as the controls which allow the machine to "know" what it is doing. This self-control performs the linking function formerly performed by man and includes remote control for multiple mechanical operations at low energy levels. The machine can store information for use at the appropriate time and use the information in a matter of microseconds.

Feed-back controls are continuously in adjustment; the machines are fed information on how well they are doing the work and can correct through constant adjustment when necessary. It is a matter of machines telling machines what to do. Such controls have been successfully applied to atomic energy, the metal trades, and the refining industries.

Since hand operations cannot always be simulated economically, redesigning of machines and processes is often necessary so that both product and manufacturing methods may be changed in terms of consumer requirements and in terms of the nature of these new controls.

Mr. Diebold cautioned against the "arithmetic of replacement" when considering jobs replaced by automation. The type of job affected is usually in the repetitive, low paying class. Evaluation must account for the growth development of new needs, therefore new jobs.

A shorter work week was predicted consisting of three or four shift operations so that not fewer men but men at fewer hours would be a more accurate labor picture. This too will be cause for rethinking as we must devise leisure time utilization facilities to a fuller extent.

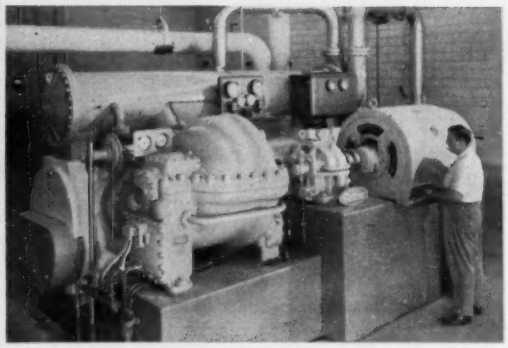
Operations Research. Glen D. Camp, consultant to the president, Melpar, Inc., defined the scope of Operations Research as "the totality of strategies and tactics for the effective utilization of human and material resources to accomplish specified purposes, military or non-military." These strategies and tactics are based on a general study; the science "specializes in not specializing."

The all over picture is considered rather than the worm's eye view. The approach consists of building a logical framework of assumptions based on statements by responsible authorities within the organization being studied. As a result of objective data collection, concluding, and testing "dry runs" a total plan of action is recommended to break existing bottlenecks.

Operational Research is a science of combining; some of the fields embraced are management counciling, industrial engineering, marketing research, and systems engineering.

The total action recommended by an OR team is based only on scientific study; the team must have access to complete information on current and future operational data at all scenes of operation. This dictates a requirement

DEERING MILLIKEN REFRIGERATES WITH CARRIER CENTRIFUGALS



This 400-ton Carrier Centrifugal Refrigerating Machine provides cooling for the air conditioning system of Deering Milliken's Gayley Mill near Marietta, S. C. Carrier Centrifugals serve dependably in many other mills—including Monarch Mills, Textron, Inc., J. P. Stevens & Company.

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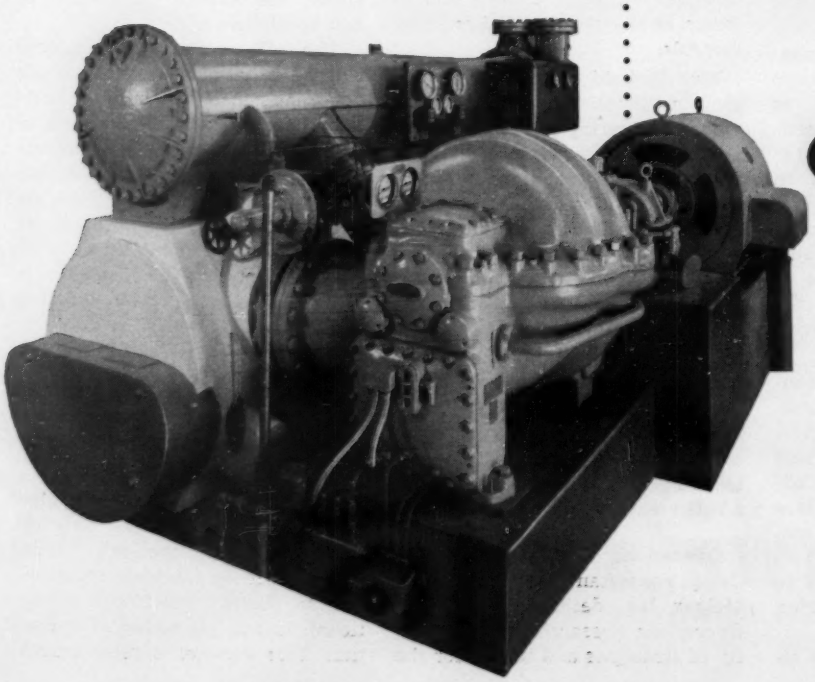

Carrier

air conditioning

refrigeration

industrial heating

for security discipline within the team; the OR scientist serves only a responsible authority within the subject organization.

OR functions on certain premises of logic: An operation has a characteristic structure; operations occurring in widely different fields of endeavor can display similarity of structure; these structures can be represented by conceptual and mathematical models making quantitative simulation possible.

The method of applying OR consists of observation, experimentation, hypothesis, testing of hypothesis, modification of hypothesis, further observation, experiment and hypothesis, etc.

Control of Appearance Changes Due to Soiling. Results of extensive studies on carpet and upholstery soiling originating from slow settling out of the air and by transfer of soil from shoe soles, made by P. A. Florio and E. P. Mersereau, both of Alexander Smith, Inc., were explained to the group by Mr. Florio.

From these studies, six requirements of a material likely to offer resistance to carpet soiling were concluded:

1. Average working particle size of treating material between 0.1 and 4.0 microns.

2. Nonhygroscopic in nature, to avoid any pickup of moisture during use.

3. Essentially colorless, to avoid color changes due to treatment.

4. Water dispersible, for ease of application.

5. Essentially not easily wetted by oil.

6. Hard enough to prevent soil impingement.

After an evaluation of a wide range of material, the field was limited to water-insoluble, nonreactive, inorganic metal oxides. Size and distribution of the particle size of the material proved to be of major importance in developing a soil-resistant finish (good effects produced by sizes from the upper colloidal range and up to 0.2 microns).

Work done to date has shown the best anti-soiling agents to be a mixture of oxides deposited on the fiber from a single dispersion—alumina and silica having working particle sizes of 0.1 to 4.0 microns are the ingredients. This combination, coupled with small amounts of wax for hand improvement, a dispersing agent, and a buffer has given the highest level of soil resistance to date; it is satisfactory for all carpet fibers.

When applied to viscose carpets, fire resistance is also increased. No deleterious side effects on the fabric have been experienced using this combination of metallic oxides; color fading and matting properties are unaffected; wear life is slightly increased.

The optimum concentration level was found to be 0.75 to 1% pickup of solids on the weight of the pile showing. Application is made as the final finishing operation after back sizing and before drying and is done by means of a double bank of spray nozzles.

The treated carpet will soil, but the original color and texture are maintained for periods three or four times that of the untreated. The finish is removed after three or four professional cleanings. Further improvements in the effectiveness of the treatment are obtained by use of oil-free backing yarns and round cross section fibers.

Improved Equations for Predicting Skein Strength of Carded Cotton Yarns

Two new count-strength-product equations have been reported* for predicting skein strength of carded warp singles yarn of any size over a wide range with special reference to current commercial production of American cotton. The new equations are better adapted for predicting strength of yarn processed from the general run of American upland cottons in current commercial production than are similar count-strength-product equations published previously by the Cotton Division of the U. S. Department of Agriculture, the announcement stated.

A random check of comparative prediction values of yarn strength for some later commercial cottons (crop years 1951, 1952, and 1953) has shown the prediction values obtained by the new equations to be, on the average, 5 to 10 per cent closer to actual values than those obtained by the former equations. Moreover, the precision of yarn-strength predictions furnished by the new equations is approximately the same for early season, midseason, or late-season harvested cottons. This was not the case with the former equations.

One of the two new equations reported includes six factors of raw-cotton quality: grade index, upper half mean length, length uniformity ratio, fiber fineness (weight per inch), fiber strength, and percentage of mature fibers (standard method). The other equation contains the three most important fiber properties to yarn strength; namely, upper half mean length fiber strength, and fiber fineness.

The new equations were developed from data representing a total of 842 commercial cottons, grown in approximately 100 selected cotton improvement groups across the U. S. Cotton Belt, for the 3 crop years of 1948, 1949, and 1950. A total of 3,267 lots of yarn, ranging in sizes from 14s to 60s, was used in the analyses. All yarns were of a warp type of construction and possessed a semi-hard twist. The principal varieties of cotton grown in current commercial production were included in this study. All cottons were grown, harvested, and ginned under commercial conditions identified with their respective growth areas. Three lots of cotton representing early, midseason, and late-season samples were obtained from each growth locality.

*"Improved Equations for Predicting Skein Strength of Carded Yarn with Special Reference to Current Commercial Production of American Cotton," by Robert W. Webb. AMS-13, United States Department of Agriculture, Agricultural Marketing Service, Washington, D. C. April 1955.

Topic for Mill Management

Which one is best? The Utility Uptwister (left) has been used in many mills for many years. The Unirail® (right) is a new development — capable of extremely high speeds, producing a 2 lb. headless package. Your Utility or other old Uptwisters may well be the most efficient, economical machines for the job they are doing. Or, replacement with Unirails for certain operations might bring you the economies and increased production you need to operate most profitably. Our Profit-Factor Study gives the answer, in facts and figures.

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The Profit-Factor Study is supplemented by the Leesona Pay-As-You-Profit Plans, designed to help mills strengthen their competitive position while safe-guarding their capital and borrowing power. These plans provide for either long-term purchase or long-term lease of Leesona twisting and winding machinery.

This folder introduces you to the Leesona Double-Profit Service, including Profit Factor Studies and Pay-As-You-Profit Plans. Read how you may take advantage of either of its two valuable features — or combine both to profit two ways. A copy is yours for the asking.

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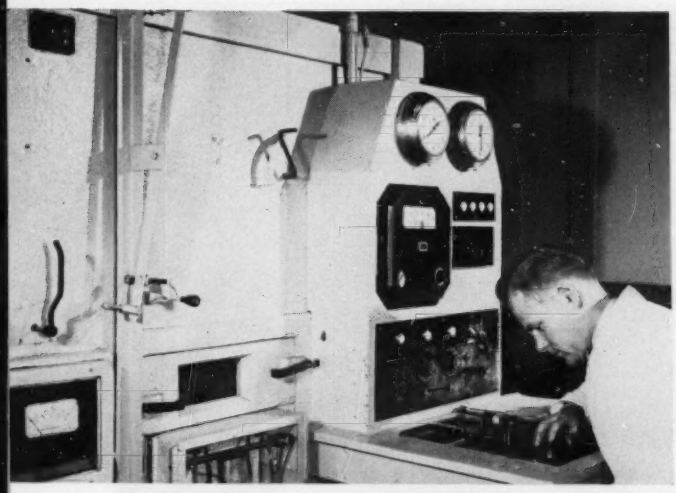


THE WARMTH TESTER is used to evaluate heat flow through a fabric sample in terms of BTU per hour per square foot of sample per °F temperature difference. This is measured by a thermocouple picking up the flow of heat from a hot plate through the cloth and into an atmosphere controllable as to temperature and wind velocity.

How Warm Is Your Fabric?

You can use fabric warmth tests to select styles with best warmth properties; for process control by setting standards for heat transmission, reflectance, and so on; and to predict the warmth properties of fabrics after being made up into end-use products.

Staff Prepared EXCLUSIVE

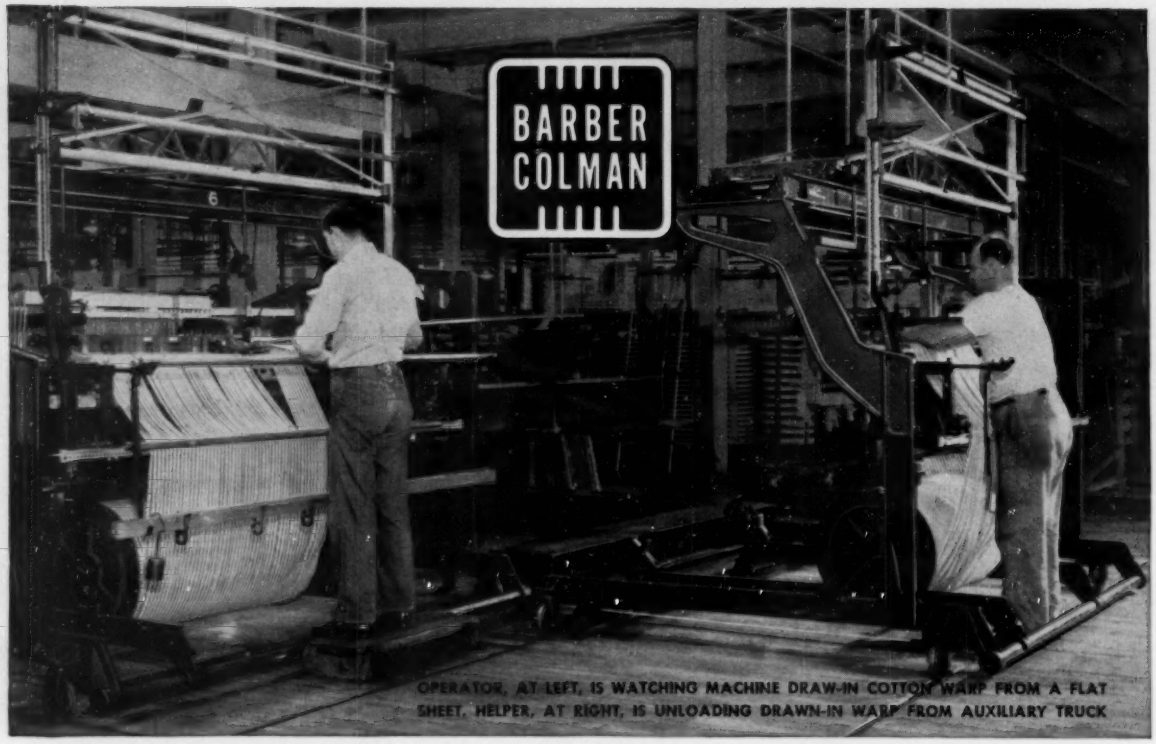
THROUGHOUT the course of textile technology, fabric warmth has posed a number of perplexing problems. Yet serious experimenters have tried to standardize and to quantify relative measurements. Some years ago, the United States Testing Co. developed a warmth tester for the purpose of determining the heat transmission characteristics of fabrics.

The Warmth Tester. A hot plate, maintained at human skin temperature of 93 F, serves as the heat source. Two guard plates at the same temperature prevent heat flow in any direction other than upward through the sample under test and into the surrounding atmosphere, the temperature of which is maintained 50 F lower. A number of thermocouple circuits, control, and timing devices enable the observer to compute heat flow through the sample in BTU per hour per square foot of sample, per degree temperature difference.

In order to simulate a number of actual use conditions, the warmth tester has been designed as a versatile instrument. Heat transfer can be measured in still air as well as in air moving at velocities up to 25 mph and directed at the sample at various angles.

Psycho - Physiological Testing. Responsible management at the United States Testing Company feels that warmth, being a subjective quantity, cannot be completely evaluated by objective methods alone, such as by heat transmisison tests. For this reason, specialists in the fields of psychology, physiology, engineering, and textile technology have collaborated in the development of equipment and tech-

INSIDE THE COLD CHAMBER two human subjects are wired with potentiometer leads (in left hand of man at left), both on the skin and in the space between the skin and the jacket. The evaluation is made on the basis of the potentiometer readings and the reactions of the subjects.



OPERATOR, AT LEFT, IS WATCHING MACHINE DRAW-IN COTTON WARP FROM A FLAT SHEET. HELPER, AT RIGHT, IS UNLOADING DRAWN-IN WARP FROM AUXILIARY TRUCK

A MACHINE WITH SHARP EYES, QUICK HANDS, AND AN AUTOMATIC "BRAIN"...

If you want to see the complete list of mills now using these machines, and the types of products they weave, write for a copy of the "Users List" shown above. *Ask for Bulletin F 6354.* It is available also in French and German translations.

The operation of drawing-in new warp through drop wires, heddles, and reed is an ever-present problem in all types of weaving. In the old days it was done entirely by hand, and still is in some places — a tedious and tiresome task. The advent of the Barber-Colman Warp Drawing Machines has changed all that, so that you now have a wide range of equipment to suit all needs. Barber-Colman Warp Drawing Machines draw-in the drop wires, the heddles, and the reed *all in one operation.* A needle, operating at 75 strokes a minute or better, picks up each end in sequence and draws it through the proper apertures. Each opening is correctly presented at each stroke of the needle, this selection being accomplished automatically from a metal pattern strip punched in accordance with the designer's draft. Thus the human eyes, hands, and brain have been supplanted by a mechanism that is sharper of vision, quicker of movement, and practically infallible. Results, in mills across the country, and in lands across the sea, show a consistent record of improvements and economies of many kinds. Application is *not* limited to only the larger mills; it is determined actually by the work to be done. *Barber-Colman representatives are qualified by long experience to make a detailed study of your requirements—and to make a proper recommendation if one is justified.* Ask *your* Barber-Colman representative for details.

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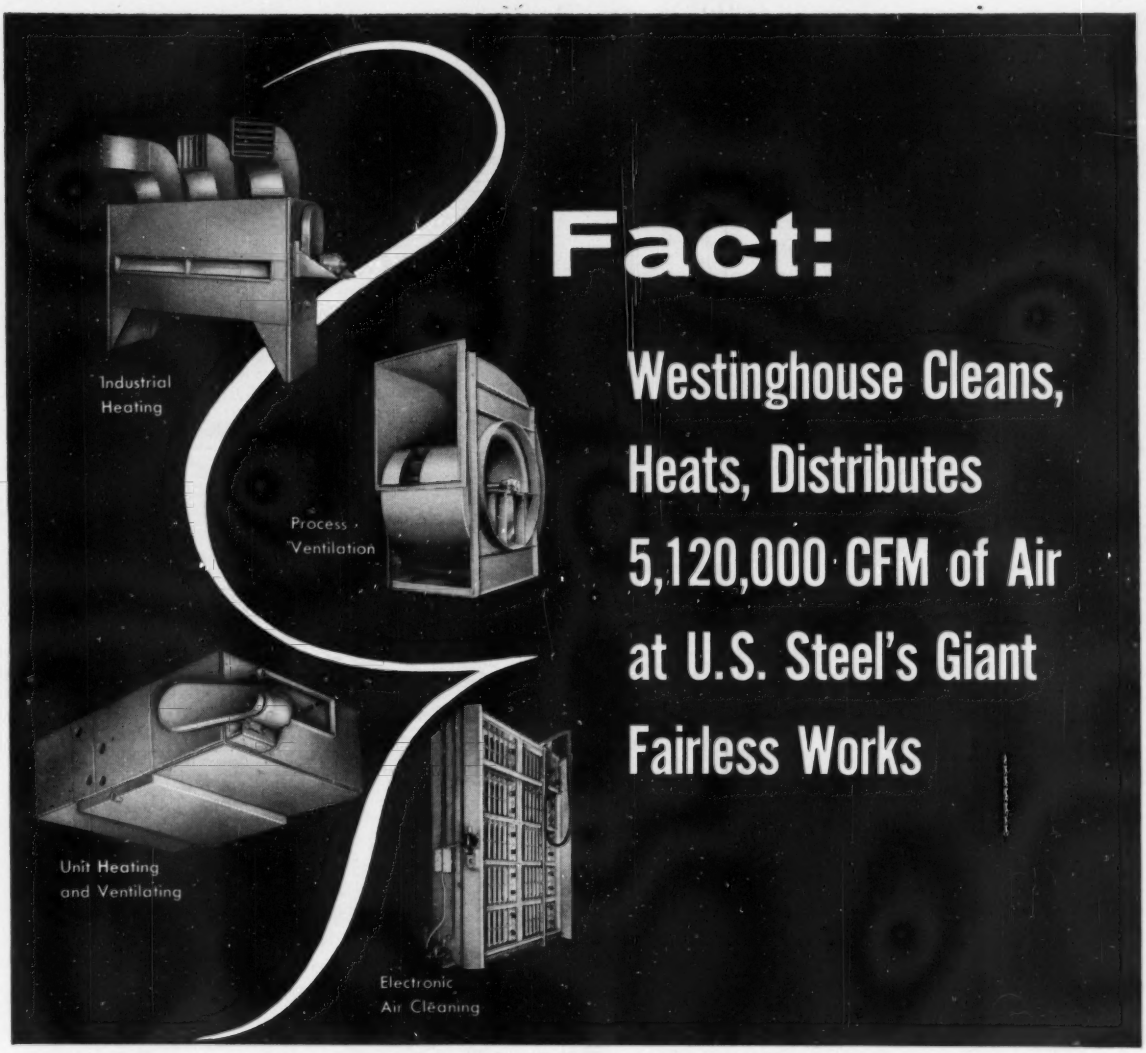

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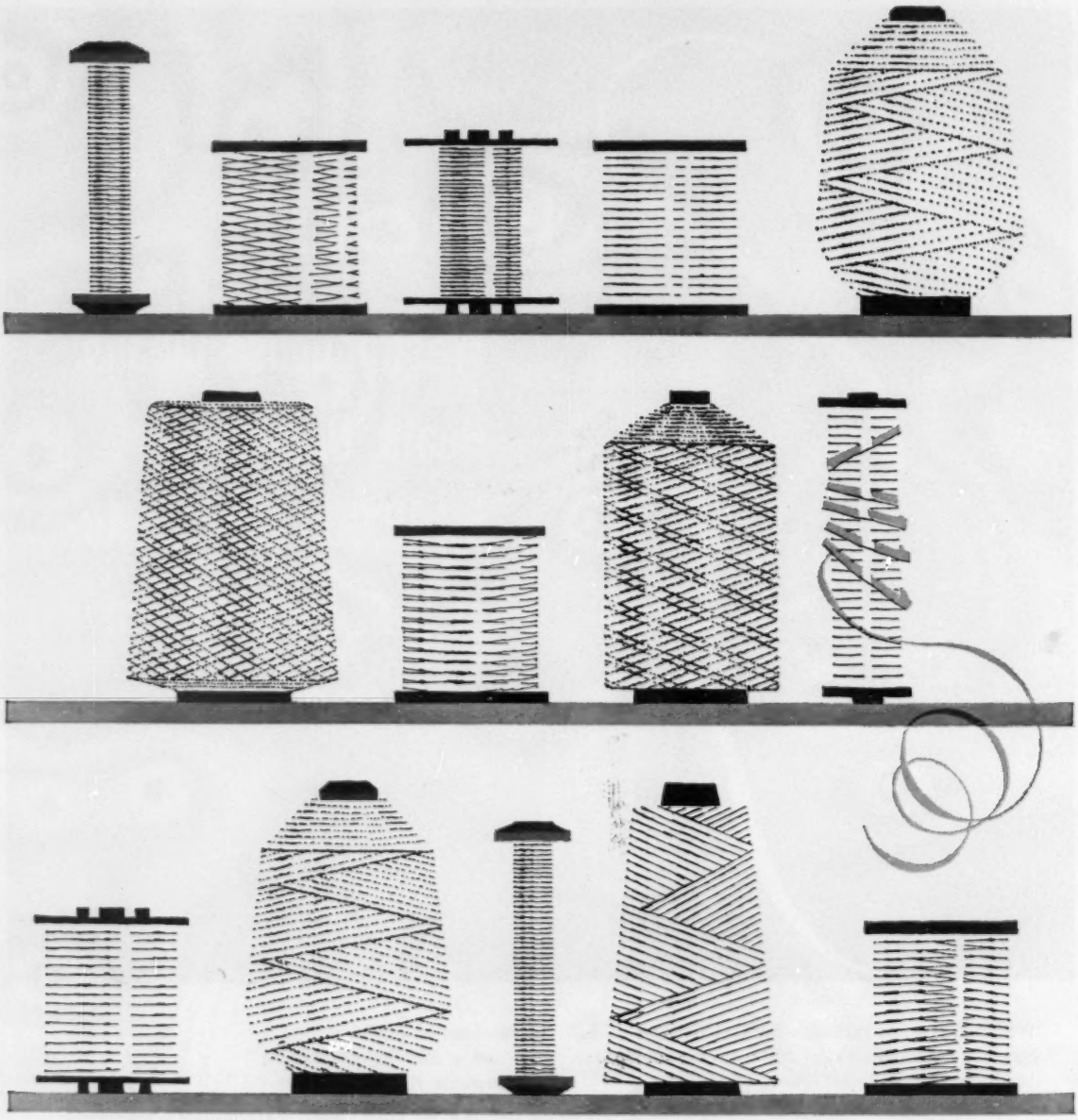

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niques of psycho - physiological evaluation.

A cold chamber, consisting of a well - insulated box measuring 8′ x 12′, is utilized for these investigations. Elaborate control equipment is capable of maintaining environmental conditions within this chamber at any temperature from —65 F to + 160 F and from 20 to 100 per cent relative humidity.

Test subjects dressed in experimental clothing are exposed to various field-established temperatures and humidities for periods as long as three hours at a time. Temperature measurements are taken at the skin surface of the subjects as well as on the fabric surfaces by means of thermocouples and a potentiometer. Since readings are taken at frequent intervals a single exposure in the chamber leads to a considerable volume of experimental data. Statistical analysis gives an evaluation of the relative effectiveness of the experimental garments.

In addition to those measurements, subjective reports are obtained from the human guinea pigs. The reports may be obtained in a number of ways: by means of rating scales, questionnaires, or by behavioral measures, whereby a given subject selects one of several pieces of clothing for reasons best known to himself.

Instrumental and behavioral data can then be correlated with each other and with results from warmth testing to arrive at an overall evaluation of various textile materials.

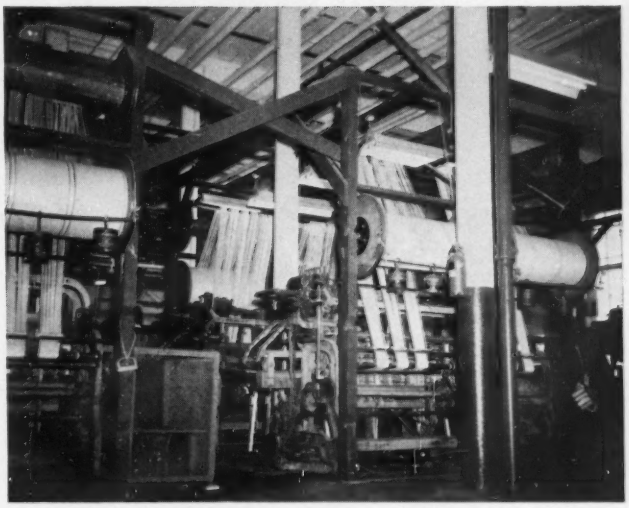
Reflectivity Tests. When it is desirable to test the effectiveness of a finish in reducing body heat loss by reflection, the U. S. Testing Co. uses a radiant heat reflectometer. The instrument is particularly applicable to the evaluation of aluminized coatings.

Infra-red heat from a hot plate source is directed at the sample to be tested. Part of the radiation is absorbed by the sample and a part is reflected. The latter heat radiation is picked up by four thermopiles connected in series and aimed at the center of the sample. The thermopiles generate electric forces proportional to the reflected radiation. These are amplified and recorded on a strip chart.

Use of Evaluation. The test data compiled by any of the discussed test methods are used by weaving, knitting, and finishing mills in several ways. A producer may select those fabric styles providing optimum all-around warmth properties. Process control in manufacturing or finishing can be established by setting standards or limits of heat transmission, reflectance, and so on; samples from each run or lot can then be spot-tested at regular intervals.

Finally, the evaluations may be carried a step further to predict the warmth properties of a tested fabric when manufactured in the form of a garment, a blanket, a sleeping bag, or other end product, or the objective and subjective reactions of the test subject may be checked against those obtained under actual conditions of use by consumers.

Future Work. The psychological approach to warmth testing is still relatively new. Much additional work is yet required before subjective responses can be confidently related to fabric or garment characteristics, such as construction blends, napping, etc. The U. S. Testing Co. hopes for assistance and cooperation from the textile industry in attaining this goal.



Narrow Fabrics Back Rack for Multiple Warp Work and Storage

The narrow fabrics weave room of Wescott Webbing, Inc., Pawtucket, R. I., has been equipped with a back rack system constructed mainly of 4″ x 6″ lumber.

Each loom is provided with a double width rack that is four beams high; racks are serviced with beams by a ceiling hoist which is moved to the appropriate rack position manually and hung on the hook at that position.

The racks can be used in several ways. Current production calls for only single-ply weaving and the No. 2 rack (counting from top) is being used for the weaving beam. No. 1 rack is used as storage for empty beams, solving a common mill problem of what to do with empty loom beams not in use.

The rack holds multiple-ply weaving beams up to four; and this represents its most important use.

A possibility, not yet exploited, is the use of the rack to store full loom beams in rack positions not used for weaving where it is desirable to keep a set of warps made from the same yarn confined to only a single loom or to just a few looms.

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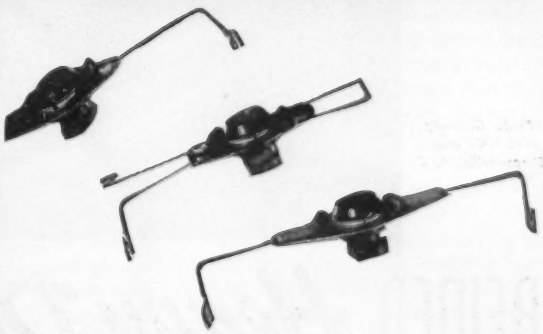
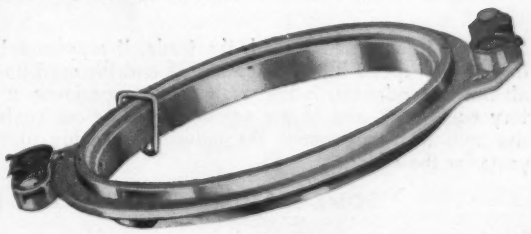


HERR Lightweight Flyers



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Government-Protected Monopoly

If a monopoly is illegal, can a super-monopoly be lawful?

By Ringgold Arden

EXCLUSIVE

WE HAVE little doubt about the attitude of the United States Government to a project involving the merger of the General Motors Corporation, the Ford Motor Company, and the Chrysler Corporation, into one huge concern. We are equally sure about the reaction if the various Standard Oil Companies proposed to reassemble themselves into one big oil producing concern, and also absorb The Texas Company, the Gulf Oil Corporation, the Shell Oil Company, and a few of the other larger petroleum producers into a monopoly completely controlling the production of petroleum products in the United States.

We could also predict with certainty the consequences of an attempt to merge the Du Pont interests with Allied Chemical & Dye, Union Carbide & Carbon, Mathieson Chemical, Monsanto Chemical, and a few other large producers in this field, to completely dominate and control the chemical industry.

If any of these proposals were seriously considered, the government would proceed with vigor and perhaps even with ferocity to prevent the consummation of any such conspiracies against the public interest.

Yet, a monopoly of even greater danger is just now in process of organization, and the government is not only taking no steps to prevent it, but is conferring its blessings upon the negotiations leading to the establishment of this cartel, which can maintain monopolistic control over all of the big monopolies previously referred to, and practically anything else in these United States that it wishes to control.

We refer, of course, to the merger of the two giant labor monopolies into one huge supermonopoly.

The CIO now has a complete monopoly in the automobile industry and the steel industry; not an automobile or a ton of steel can be made if the CIO wishes otherwise. The AFL maintains monopoly control of the nation's trucking facilities and its building trades, and both of these big labor organizations maintain monopoly control over many other industries.

It is now proposed that one board of directors shall be able to settle the hash of any American industry or combination of industries that the labor cartel wishes to discipline.

There is nothing fanciful about the threat which this labor combine offers to the American method of doing business. Anyone who has been a student of labor racket methods will realize this.

The leading article in the *Reader's Digest* for February 1955 gives a graphic picture of what goes on all over the United States where labor unions control the economy of an area. Every one of our lawmakers should read this article, and should realize that this state of affairs is not exceptional in anything except the fact that it has been publicized. An investigation would disclose substantially the same conditions existent in most large cities and many small ones.

It is merely necessary to give any group of people the power to do evil things without any compensating restraints, and they will do those evil things. The whole history of government and the history of power as far back as history goes shows that great power has led to great excesses. Our whole American System of Government was founded on the principle of restriction and containment of power.

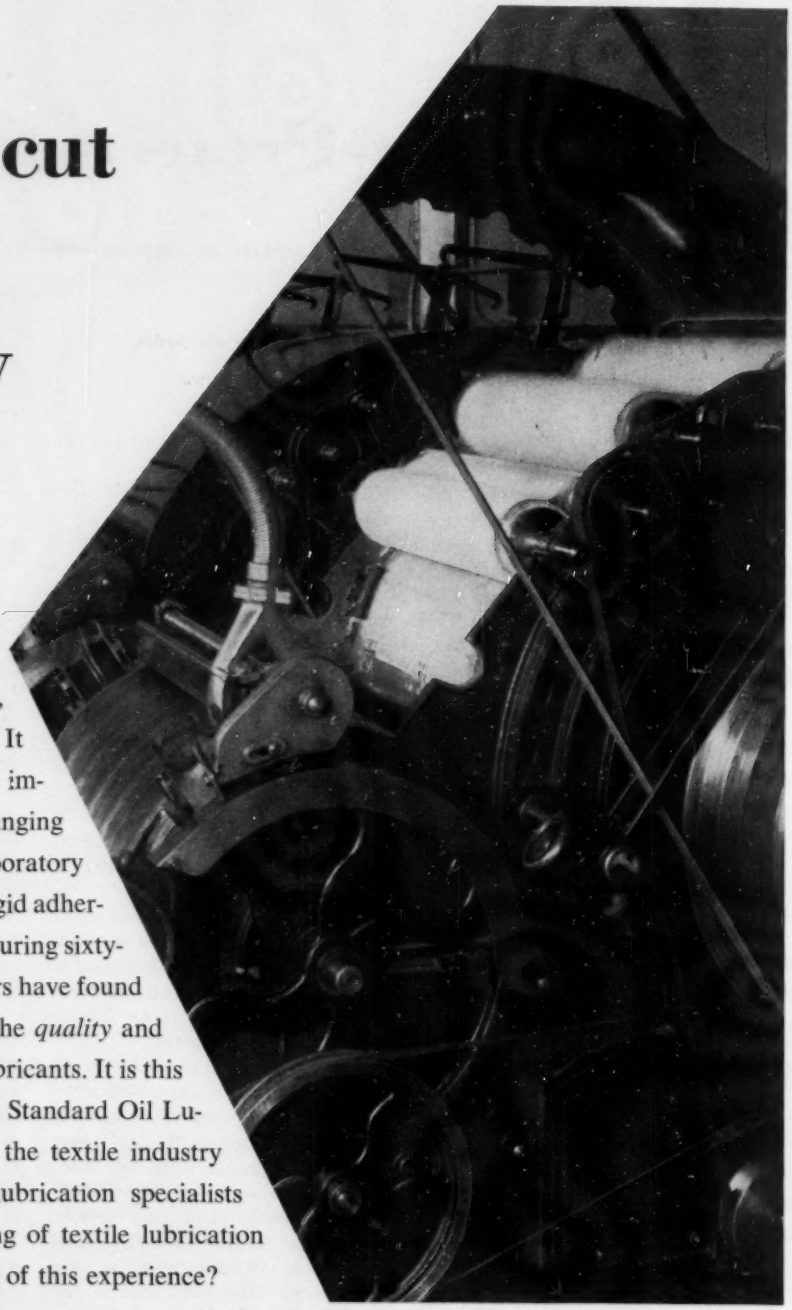
Our federal government has very properly opposed monopoly control in industry, banking, and in business generally. This opposition has sometimes been carried almost to the point of absurdity, as in the famous case of the government trying to dissolve the A & P Tea Company, which was claimed to be a monopoly, although it only did about six per cent of the grocery business in the United States.

For a responsible government to prosecute, and even persecute, business upon the slightest suspicion of monopolistic practices, and then to welcome the formation of the greatest and most dangerous monopoly of all, is not only illogical and dangerous, but to us it seems stupid.

These labor monopolies operate with the same truculence and indifference to the public welfare that could be expected from a railroad monopoly, motor monopoly, or banking monopoly. In fact, the labor monopolies are far more reckless in using their tremendous powers than any business monopoly would be because the labor monopolies are perfectly irresponsible. They can wreak any damage which seems to them expedient to gain their ends, and no one can be punished for this, nor can damages be recovered for the injury done.

We have repeatedly argued that we need to split up the labor unions into smaller groups, and encourage competition between them. If competition between business units is desirable, why should not a competitive position between

no short cut to quality



In the production of industrial lubricants, as of textiles, there is no short cut to *quality*. It is achieved by long research, improving each product to fit changing machinery needs, constant laboratory control to assure uniformity, rigid adherence to proven formulae. . . . During sixty-nine years' use, textile engineers have found that they can always rely on the *quality* and *uniformity* of Standard Oil Lubricants. It is this dependable quality that keeps Standard Oil Lubricants *first* in popularity in the textile industry throughout the South. Our lubrication specialists have a practical understanding of textile lubrication needs. Why not avail yourself of this experience?

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(KENTUCKY)

labor organizations be just as beneficial?

We have already seen how these labor monopolies operate in the major fields of industry, when a strike will be called against General Motors while Ford, Chrysler, and the others are left alone to take the business of General Motors away from them. General Motors must therefore comply with the demands of the extortionists and pass on the increased cost of motor car manufacturing to the general public. The other motor manufacturers of course must follow suit in the wage raises to prevent strikes in their own plants.

Next time some extorting is to be done, the Ford Motor Company or the Chrysler Corporation may be chosen as the pilot operation. One union completely controlling all automobile labor is thus able to do as it pleases with that industry. The same thing happens in the steel industry, the electrical industry, and many others.

What we need is more competition in the labor field instead of less, and there should be such a competitive situation that each union would stand on its own feet and make its own decisions on the basis of its own best interests, rather than being in a position to force onerous conditions upon a whole industry which can pass the burden on to its customers.

Labor monopoly has existed by industries heretofore, in which the CIO controlled certain industries and the AFL controlled others, and now we are to have one big racket which can control everything. It is argued of course that such a racket is restrained by public opinion, but when you are boss of an organization containing about 15 million people, and by threats, intimidation, chicanery, and the pressures which can be exercised in such an organization, can force practically any of those 15 million people to do what you want them to do, you just about control public opinion.

Anybody who has tried to buck the labor rackets in a racketized American city will understand exactly what we mean. In many cities, if we can believe factual reports by business men in those cities, these rackets control the police and the courts, and as any politician can tell you, when you control enough localities, you can control a nation.

The control which labor unions exercise in many cities is absolute. Great numbers of big unions involving hundreds of thousands of people are run by people owing no responsibility to anybody or anything. The members of these unions have nothing whatever to say about their management. A workman has to belong to one of these unions if he wants to work, and he does exactly as he is told by the goons who run the unions. It is definitely a state of "government by goons."

Now, it is proposed to make this situation worse instead of better, and the federal government, for some inscrutable reason, gives aid and comfort to the organization of this giant monopoly which will far out-shadow any other monopoly ever even dreamed of in this country.

We have never seen the slightest excuse for the national government failing to subject labor unions to the same controls imposed upon other organizations. A labor union is a business and nothing but a business. It is an extraordinarily profitable business for the people who run it. To exempt such a business from the operations of the common law seems to us not only dangerous, but absurd, and to think that any group of persons clothed with vast and unrestrained authority will not become corrupted by that power is also not only dangerous, but absurd.

We have seen only occasional doubts expressed in the public press about the expedience of this organization of one overwhelming labor cartel, but there are undoubtedly thousands of persons better acquainted with the consequences of monopoly than many of the editors who write on the subject, who are profoundly concerned about this definite movement away from the traditional American processes toward the totalitarian methods which have worked so much ruin in Europe.

The typical labor union is a totalitarian organization, which is generally a law unto itself. With proper competition between unions, it would always be possible for a man who felt that one union was not treating him fairly to find a job where a better union operated; but where there is monopoly control, a man may easily find it impossible to earn a living if the union blacklists him, and there is absolutely nothing like controlling a man's livelihood, to make him do just as you tell him to do.

If there is one single thing in the public interest in this labor union merger, we have failed to see it.

Automation Held No Threat to Your Job

Automation and the push-button factory are not a threat to your job and they probably won't make you rich overnight.

That is the view of industrial equipment producers, according to the Council for Technological Advancement, which has urged the need for "adult understanding of this latest phase of the industrial revolution that began with the invention of the steam engine in 1769."

Five facts essential to an understanding of automation were listed by the Council:

1. New inventions have always been feared by some, ever since Belgian operatives threw their wooden shoes into textile machinery and the term "sabotage" was coined.

2. Man's wants increase even faster than mechanization, and there is always a growing amount of useful work to be done, regardless of the amount done by machines.

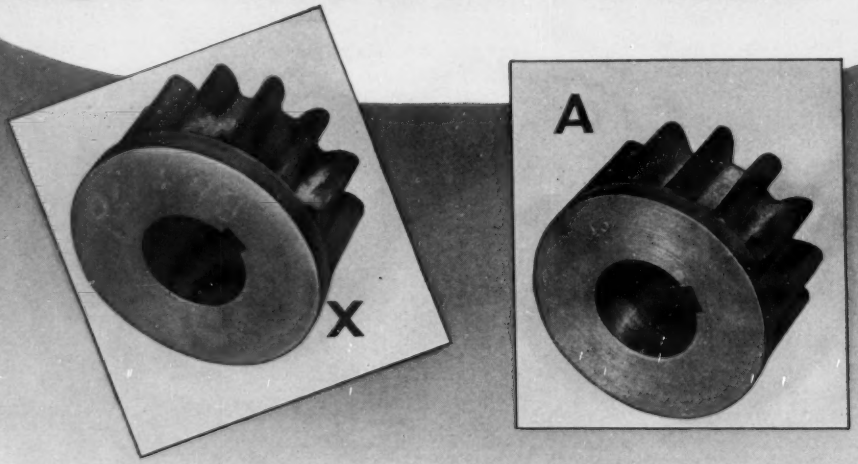
3. Census figures show that throughout American history job opportunities have more than kept pace with population increase.

4. Job opportunities have grown fastest in industries, like automobile manufacturing, where technological advancement was greatest.

5. More output per operative is the "secret" of higher living standards, and the machine is the operative's best aid to greater productivity.

A TRUE STORY — NO. 1 OF A SERIES

WHICH IS THE BEST "MONEY VALUE"?



FIRST COST IS A LONG WAY FROM FINAL COST!

LET'S EXAMINE THE FACTS

Gear X, while costing considerably less than Gear A, is intended to do the same job in a Saco-Lowell 90 Pattern Picker. They are the Drop Shaft Gears designed to drive the entire calender section of the picker. This gear takes the entire load *under shock* when starting a new lap.

NOW, LET'S EXAMINE THE GEARS !

Gear X is a very cheap imitation of the original part. It is nothing more than gray cast iron with a Brinell Hardness of 170. Saco-Lowell Gear A is made from the original design, using the proper pattern and made of *Malleable Cast Iron* with a Brinell Hardness of 100. It should be pointed out that a higher Brinell denotes a more brittle, easily broken casting.

IN USE, WHAT HAPPENS ?

Remember, the 13 tooth drop shaft gear is in motion at all times and is jammed into mesh with the 80 tooth gear to drive the entire calender section. Gear X cannot possibly withstand the shock and impact of meshing and will soon chip and knock out teeth. Gear A, being made of malleable iron, will stand up under this shock load. Also, malleable iron will mold itself to match the driving gear, and this prevents wearing out the expensive 80 tooth gear. *Malleable Gear A is a genuine Saco-Lowell part, a fitting reminder that the initial cost is not the important factor in the long run.*

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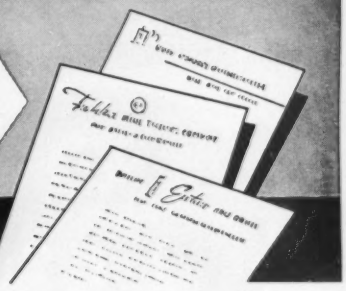


What Do Carding and Spinning Overseers Expect of Each Other?

EDITOR TEXTILE INDUSTRIES:

The better carding and spinning overseers operate together for a common object. That object is to produce the largest weight of yarn of the desired quality, with the least expenditure of time, capital, and human endeavor. The motivation of their labors is partly self-interest, partly hope of future promotion, but perhaps mainly because they have found work for which their talents are suitable.

They are partners in the sense that they operate for a common purpose. They communicate with each other constantly, both directly and through their immediate superior. They scheme together, educate and coax each other, argue and agree — anything to achieve their objective. Neither expects the other to do all the work, but each expects the other to take appropriate action within his sphere of authority and at the proper time.

The spinner expects the carder to make delivery of roving at the same rate as it is spun into yarn. As soon as the roving is doffed in the card room it should be sent to the spinning room, and not left to lie around underneath belts, gearing, or in any other place where it can become soiled.

The spinner should in turn keep the material flowing by having it laid on the creels as soon as it arrives. Neither of the two overseers cares to have more roving in the spinning room than is necessary to cover probable contingencies, because:

1. It costs money to finance idle material.

2. There is more possibility of dirty or mixed roving.

3. Changes in quality cannot be made as quickly.

The spinner expects roving to be delivered in clean, well-packed trucks, with individual bobbins clearly identified as to hank and quality of stock. Chalk marks must be put on top or the bottom of the roving cones. This enables the spinning room staff to maintain a constant check for mixed roving.

The spinner also hopes that roving is sufficiently identified that the carder is able to fix responsibility in the event of poor workmanship or bad machinery manipulation.

When spinning synthetics, where fugitive tints are used to identify blends, the spinner makes a point of drawing the carder's attention to variations of shade. He may often get quick action from the carder by explaining that the color vision of spinning room employees is not as acute as that of the operators in the card room.

Perhaps the most important demands the spinner makes of the carder are uniformity and balance.

Uniformity. The roving must be regular in weight per unit length as the mill standards demand. No

NEW KINK CONTEST!

$100 will be awarded the winner

Send your entry now! This contest ends August 15, 1955

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

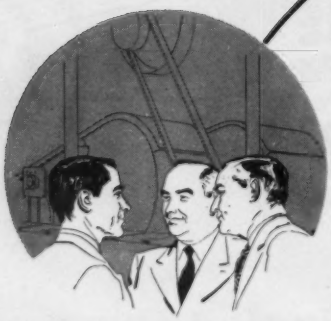
► All contributions must be postmarked not later than midnight, August 15, 1955.

► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously and must not be submitted to any other publication.

Send your contest entry to:
Editor TEXTILE INDUSTRIES,
806 Peachtree St., N. E., Atlanta 5, Georgia.



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short-term irregularities due to badly adjusted, poorly covered, or inadequately lubricated rolls find favor with the spinner.

The roving should unwind without breakages due to lack of twist, strained roving, or run-over cones. Moreover, all roving bobbins should contain as near the same amount of roving as it is possible to achieve. Few things are more annoying to a spinner than to be suddenly confronted with a host of run-out rovings, where previously they had run out in a uniform and manageable manner.

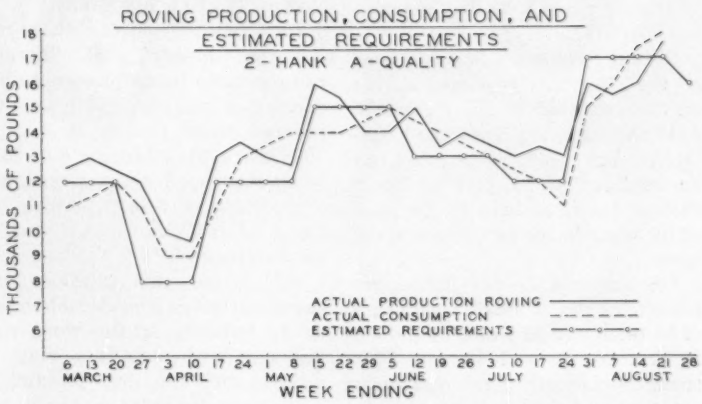
An epidemic of run-out rovings can reduce an operator's efficiency for hours, by extending her patrolling frequency to such an extent that she has extreme difficulty in getting ahead of the job again. It is the spinner's duty to explain to the carder the expense and poor workmanship this type of variability introduces. The spinner should also assist his fellow overseer by instantly reporting to him any obvious differences in full bobbin diameters, length of lift, or roving density.

Occasionally the spinner expects the carder to produce bobbins of irregular sizes, on request. This could occur when a new stock is being introduced, making it necessary to strip and replenish the creels. At the same time, the carder does not expect the spinner to ask for more broken sizes than are essential. Judgment must be exercised to obtain the maximum benefit from reduced numbers of piecings at the spinning frame without excessive damage to cardroom routine.

Balance. When he is required to spin a "batch" order of a special quality or blend, the spinner expects the carder to deliver the correct amount of roving in time for him to meet his own delivery deadline. A batch produced short in the cardroom causes either a disappointed customer or unnecessary expense in both cardroom and spinning room. At best, if the batch is over-produced, the spinner wastes a lot of time trying to dispose of the surplus without suffering heavy financial loss.

The spinner should therefore let the carder know exactly how much roving is required and when it is needed. He should also give sufficient notice of his requirements.

To insure that the carder is in no doubt as to what is required, the spinner usually presents him,



toward the end of each week, with an estimated weight of each roving quality needed for the following week. At the same time, the spinner may also give a list of the actual weight of roving he has used the preceding week. From this information it is a simple matter for the carder to keep a record both of roving produced and roving consumed.

A graph similar to the one in the accompanying illustration only takes a few minutes per week to keep up to date, but it shows clearly the effectiveness of the efforts to balance production.

Even though a production department may be a part of the company, this should not prevent overseers from keeping close contact on production matters. Such cooperation is a valuable asset to a company, prevents considerable unnecessary expenditure of time and money, and is an excellent check on the production department's calculations.

Quality and Cost. The quality and worth of a spinning mill's product are the result of uniformity and balanced operations. To approach their objectives, both the carding and spinning overseers should have this thought always in mind.

The spinner should return empty bobbins, trucks, and reworkable waste to the cardroom in a constant and uniform stream. The carder should send his product with as much care and attention as he would take in exhibiting them on the open market. He should consider himself to be working for the spinner, just as the spinner should consider himself to be working for the weaver or knitter.

N. H. POMFRET

How to Get Low TPI in Twisting

EDITOR TEXTILE INDUSTRIES:

On some types of twisters, it is necessary to change the cylinder gear to get a low number of turns per inch of twist. Since the maximum size of this gear is limited (70 teeth on our twisters), the lowest tpi that can be obtained is correspondingly limited.

We have developed a method for reducing the tpi to anything required. While the details are applicable only to frames similar to ours, the principle can be applied

HOW OTHER MEN MANAGE

Quick Repair for Temple Thread Cutters

to frames made by other machinery manufacturers.

On our twisters, a 20-tooth gear on the side twist gear stud drives an 80-tooth gear on the front roll. This pair of gears is on fixed centers to each other. These gears can be replaced by a pair of twist change gears, as long as the sum of the teeth in the pair remains the same.

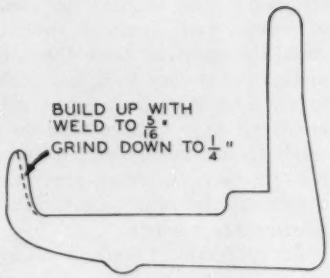
For example, on our frames replacement can be made with gears of 50 teeth and 50 teeth, 70 and 30, 30 and 70, 60 and 40, etc. This change drastically alters the twist constant and makes it possible to insert any low tpi desired.

CONTRIBUTOR No. 8711

EDITOR TEXTILE INDUSTRIES:

Heavy filling yarns such as nylon-wool blends and Fiberglas cause temple thread cutters to become dull quickly. For years we ordered these cutters in lots of 100; when they became dull they were sharpened a few times, but the cutting part soon became too small so that the cutters had to be discarded.

We solved this problem and saved ourselves considerable money by building up the worn cutting part with weld to a width of about 5/16", and then grinding it down to a sharp edge, about ¼" wide.



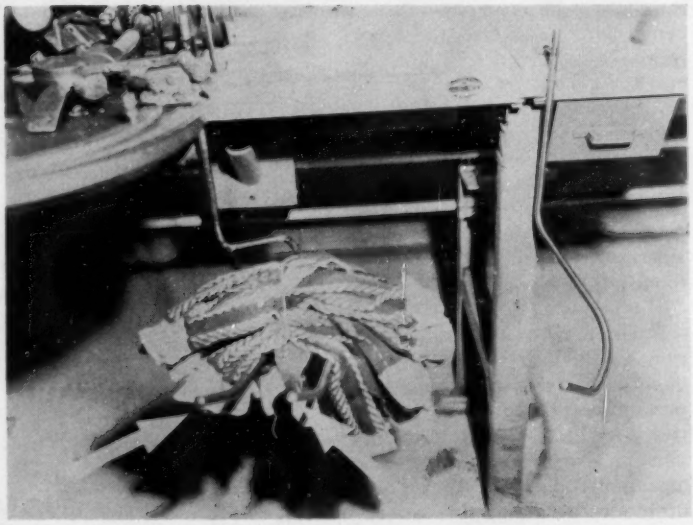
The repaired cutters operate better than when they were new, because of the hardness of the weld, which takes a sharper edge. Their wear life is also considerably extended.

CONTRIBUTOR No. 8779

Steel Rod Makes Handy Hose Support for Sock Loopers

A NUMBER of our fine point Sotco loopers were converted to coarse point for looping socks, but the work support arm was found unsatisfactory for holding the looped socks as they were taken off the points. This was due to the fact that socks cannot be placed on a single rod the same way in which full-fashioned and also seamless hosiery is supported when it is being taken off the looper points.

A supply of ⅜-inch cold-rolled steel rod was secured and bent to the general shape of the work support arm along its horizontal plane. Next the rod was bent into the shape of an elbow and cut off at a point five inches beyond the bend. These pieces were welded to the work support arm (see accompanying illustration). The additional work arm is parallel with the old work support arm. At the right in the illustration and attached to the looping table is the original work arm before being improved.



On the left side is the improved work arm, and the arrows in the illustration point to the ends of the dual rod. The new part is welded to the old part at the place where the vertical bend has been made.

In practical operation, the socks are always untied before being looped. The socks are removed from the looper points two or three at a time and laid across the two rods until a full dozen pairs have accumulated. It is then a very simple operation to slip the string

Additional Tips on Reducing Card Sliver Variation

In the May, 1954, issue of TEXTILE INDUSTRIES, under Tip No. 5, the above subject covered such features as: checking of all plates, feed roll shafts, mote knives, lickerins, gearing, calender rolls, screens, doffers, card clothing, etc.; elimination of irregularities; setting to gauge all points on entire card. Additional copies of this previous page will be supplied free of charge on request to ASHWORTH BROS., INC., Fall River, Mass. The following is a continuation of this subject.

1. Pressure cannot be applied evenly across the width of the lap when feed roll bearings and shafts are worn. To prevent plucking and jerking in of thin places in the lap, be sure all feed roll shafts and bearings are full size. You will benefit, not only from a more even sliver but also from eliminating bruises or jams on your cylinder clothing.

2. Cylinder fillets that are dull load very quickly and tend to roll the stock, thus affecting evenness of sliver. Fillets that are loose on the cylinder tend to have the same effect.

3. Improperly ground flats may affect sliver evenness. Guard against "wedge" ground flats, i.e., long wire on one end, short on opposite end. Be particular about the heel and toe arrangement, as the carding action of the flats can be quickly ruined when the wire is ground away on the heel.

4. Strip on regular schedule. Any variation in the stripping cycle will affect sliver uniformity.

5. Piecing up the end too soon after stripping affects uniformity.

6. Too much tension between the lap roll and feed roll is another source of non-uniformity.

7. Improper contact between top calender rolls in coiler head will affect uniformity.

8. Too much tension between the doffer comb and coiler head will stretch the stock.

9. A lickerin with bruised teeth causes variation in delivery of stock to cylinder. A lickerin with low places, or a high-sided lickerin, also causes uneven delivery at the cylinder, all of which affects sliver uniformity.

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please turn the page ▶

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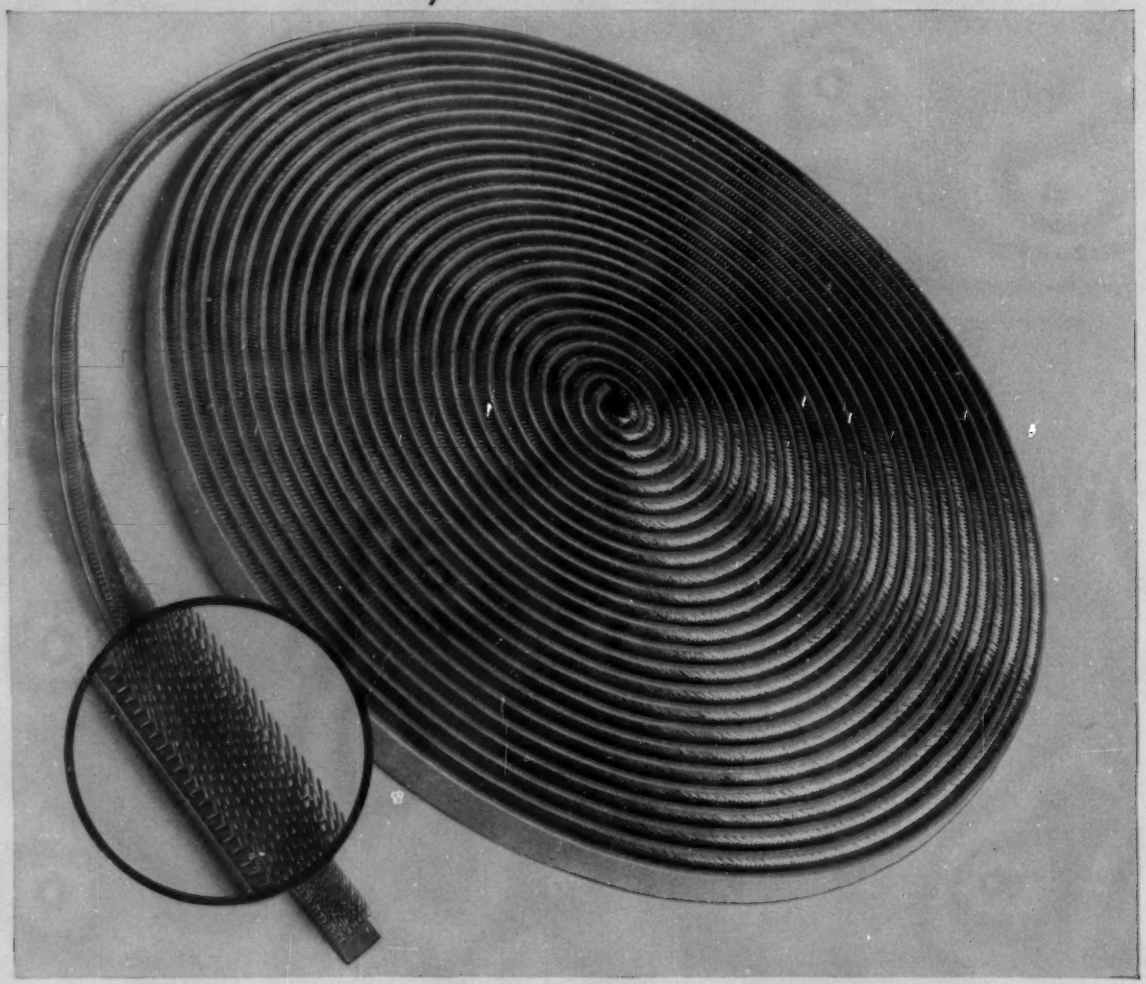

We were among the first to manufacture napper clothing and brushes in the United States and now carry in stock standard types for prompt delivery. We also furnish special constructions to order.

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between the two rods and tie it around the bundle of socks.

The steel rod is very inexpensive, and the device adds greatly to the comfort of the operator by relieving her of the task of holding the looped socks in her lap. It improves the operators production and also allows them to arise from their chairs without disturbing their work.

Mill Designer Tells How to Make This Novelty Fabric

EDITOR TEXTILE INDUSTRIES:

We would like to have an analysis of the fabric sample enclosed (see accompanying illustrations), giving the twist and count of the ply yarn ends, and also telling if the top beam ends have been sized.

CONTRIBUTOR No. 8761

[*The sample of fabric was submitted to the designer at a well-known mill, who made the following analysis.—Eds.*]

EDITOR TEXTILE INDUSTRIES:

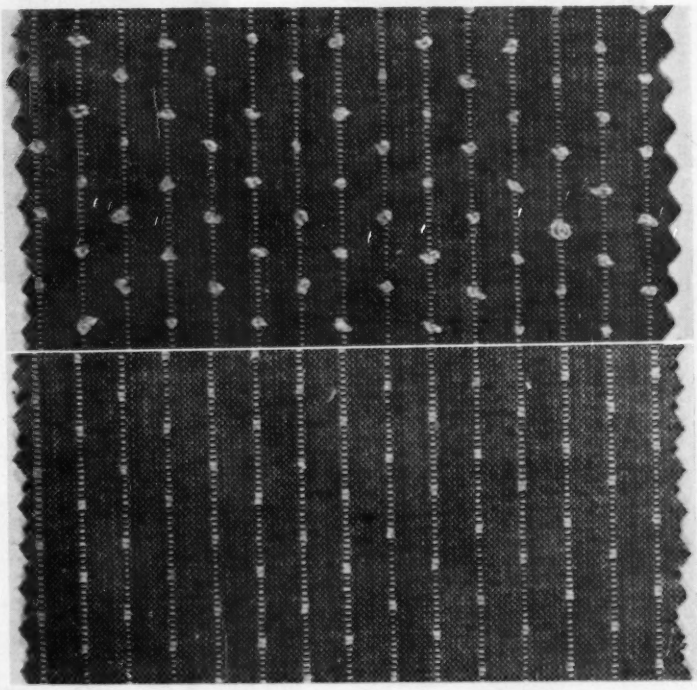
The ground warp ends of the sample appear to be 37/1, the decorative ends 37/2, and the filling 34/1. The twist in the decorative ends is soft; the other ends have regular twist.

Both warps have been sized. The decorative ends would probably weave without size, but will run better if given a light application.

This is not a standard fabric, and is not woven on standard equipment. Each mill will have to devise its own loom attachments for weaving it.

The fabric is a plain weave, with the decorative yarn weaving as flats, i.e., two ends weaving as one. They do not appear to have been drawn two ends per eye, but each end on a separate heddle.

I would suggest that two, not one, top beams be used, and one ground warp beam, in order to obtain the staggered effect shown. A dobby should be used to control the decorative ends, which should be drawn in on different harnesses from those used for the ground ends.



FACE of fabric is shown in upper photo, back of fabric in lower photo.

By using two slackener bars, controlled by extra pegs on the dobby chain, the decorative spots can be inserted at predetermined intervals, staggered as shown on the sample.

CONTRIBUTOR No. 8762

Reader Says "Rotate Tedious Mending Jobs"

EDITOR TEXTILE INDUSTRIES:

In cases where a wrong draw continues throughout the entire length of a piece of worsted cloth, total mending time is reduced and menders' attitude improved when the work is split up among several operators rather than allowing one mender to do the whole job.

The average time required to sew a wrong draw is five days; the completion of the job is usually accompanied by a certain amount of complaint by the mender assigned to it. The work is tedious, and efficiency decreases considerably after the first day or so. Further,

(Continued on page 153)

THE BIGGEST

*Announcing**

THE LQ600 VALVE

ANOTHER LUNKENHEIMER "FIRST"
. . . the revolutionary new bronze valve which has broken all existing performance records!

LUNKENHEIMER THANKS ALL OF THE LEADING COMPANIES WHO COOPERATED IN THE FOUR-YEAR LQ600 FIELD TESTING PROGRAM

The LQ600 Valve has been tested for four years in carefully chosen "problem installations" in American industry. *Despite the poor records of previous valves, there was not one single reported case of failure or leakage of an LQ600 Valve!* Here are a few typical records:

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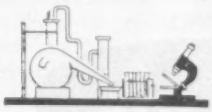

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LQ600 gives you so much *more* service per dollar that you can't afford to continue using bronze globe valves that require constant repair and replacement!

Valve users, cooperating in a four-year testing program, were unable to find *any* service tough enough to wear out an LQ600 — or cause it to leak, even in the most severe throttling installations! This new valve is an investment — one that pays cash dividends in maintenance savings year after year!

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*Patented alloy. Trade Mark, The Lunkenheimer Co.

For more information, call your local Lunkenheimer Distributor or write The Lunkenheimer Company, Box 360, Cincinnati 14, Ohio.

TYPE OF SERVICE	LIFE OF OTHER VALVES	USER COMMENT
125 lb. hose steaming	2 wks. to 2 mos.	Toughest service, previous valves leaked.
Water col. blowdown	2 mos.	Plug valves couldn't take it.
185 lb. steam blowdown	1 yr.	Plug valves failed every year.
125 lb. steam blowdown	"Short"	Previous valve leaked every run.
200 lb. steam—water col. blowdown	2 mos.	Previous valves failed by wiredrawing.
Throttling syrup 140°F.	"Short"	Previous valves cut.
150 lb. throttling 380°F.	6 mos.	Plug valves failed regularly.
100 lb. throttling	2 wks. to several mos.	Plug valves couldn't hold up.
130 lb. throttling	8 mos.	Composition seat valves unsatisfactory.
110 lb. throttling steam	3 wks. to 3 mos.	Three other kinds failed.
Scaled hot water line	"Short"	About all makes used—none held up.
125 lb. throttling steam	6 to 12 mos.	Plug valves failed by wiredrawing.
150 lb. steam—scale present	"Short"	Previous valves broke.
150 lb. throttling steam	4 to 5 mos.	Other makes failed by wiredrawing.

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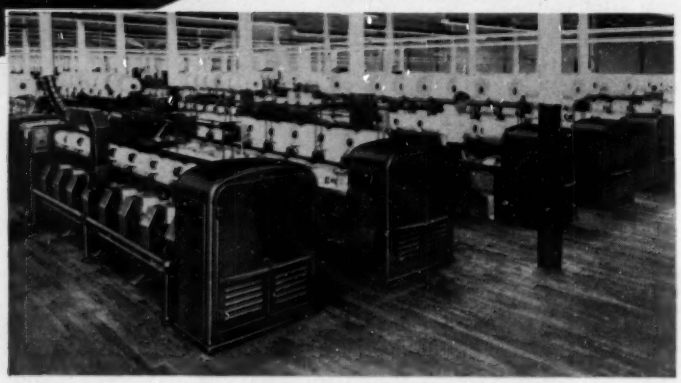

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- **Settings are held for unusually long periods of time. Adjustments are simple, easy and quickly made.**
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WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

(Continued from page 149)
there is often a feeling on the part of the mender that she is receiving an unequal work load in comparison with others in the department.

We have solved this problem in our mill by making sure that each mender works on lengthy sewing jobs for no more than one day. We rotate the job or jobs so that everyone has her turn at such work. In many cases, besides attitude improvement, the time required to mend a piece-long defect is reduced as much as 50 per cent.

CONTRIBUTOR No. 8715

HOW OTHER MEN MANAGE

Easily Installed Pressure Rolls Convert Loom to All-Purpose Take-Up

EDITOR TEXTILE INDUSTRIES:

On Crompton & Knowles W-2 and W-3 looms with high roll take-up, trouble is encountered at times because of the cloth slipping on the take-up roll, which results in uneven cloth and hence in increased seconds.

After finding that the cost of equipping our looms with the all-purpose take-up was prohibitive, we decided to see if we could apply pressure rolls to the existing take-up. We solved the problem in the following way.

Start with the top roll (the one nearest the lay); drill 3/8-in. holes about half way through the solid plug in the end of the roll, about ½ in. from each end. Fill the holes with soft wood plugs.

Apply a good grade of cement to the roll, and wrap the roll in a spiral 28-oz raceplate felt. The ends of the felt are held by carpet tacks driven into the wooden plugs. The width of the felt should be 1½-2 in. In place of raceplate felt, some may prefer to use a heavier grade, such as rosella felt.

This roll will no longer run in its original brackets, but will be placed on top of the brackets.

Two eyebolts with the following dimensions are required: inside diameter of eye, ½ in; diameter of threaded part, ½ in; length, 5 in; length of threaded part, 4 in. Oilite bushings are installed in the bolt eyes.

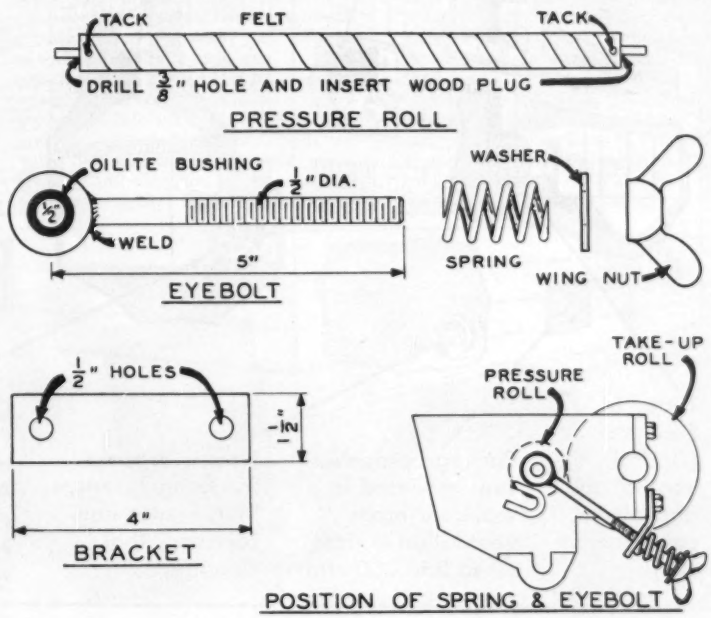
The eyebolts are slipped on the journals of the felt-covered roll in such a position that the threaded part is facing the front of the loom.

The next step is to make a bracket to hold the threaded part of the bolt in place. Take two pieces of flat stock, each 1½ x 4 inches, and drill a ½ in. hole a short distance in from each end of both plates.

Next, remove the bottom bolts in the bearings which hold the take-up roll to the loom; attach one of the brackets to the bearing at each end of the roll. The brackets should be bent as shown in the accompanying illustration; the angle of bend is a matter of individual judgment.

The eyebolt is then threaded through the hole in the bracket and a fairly heavy compression spring slipped on to the end of it. A washer and a ½ in. wing nut hold the spring and eye to the bracket.

A small amount of pressure of the wing nuts draws the pressure roll to the take-up roll and prevents slippage of the cloth.



This simple conversion has ended our cloth slippage problem, and at a cost of only $5 per loom.

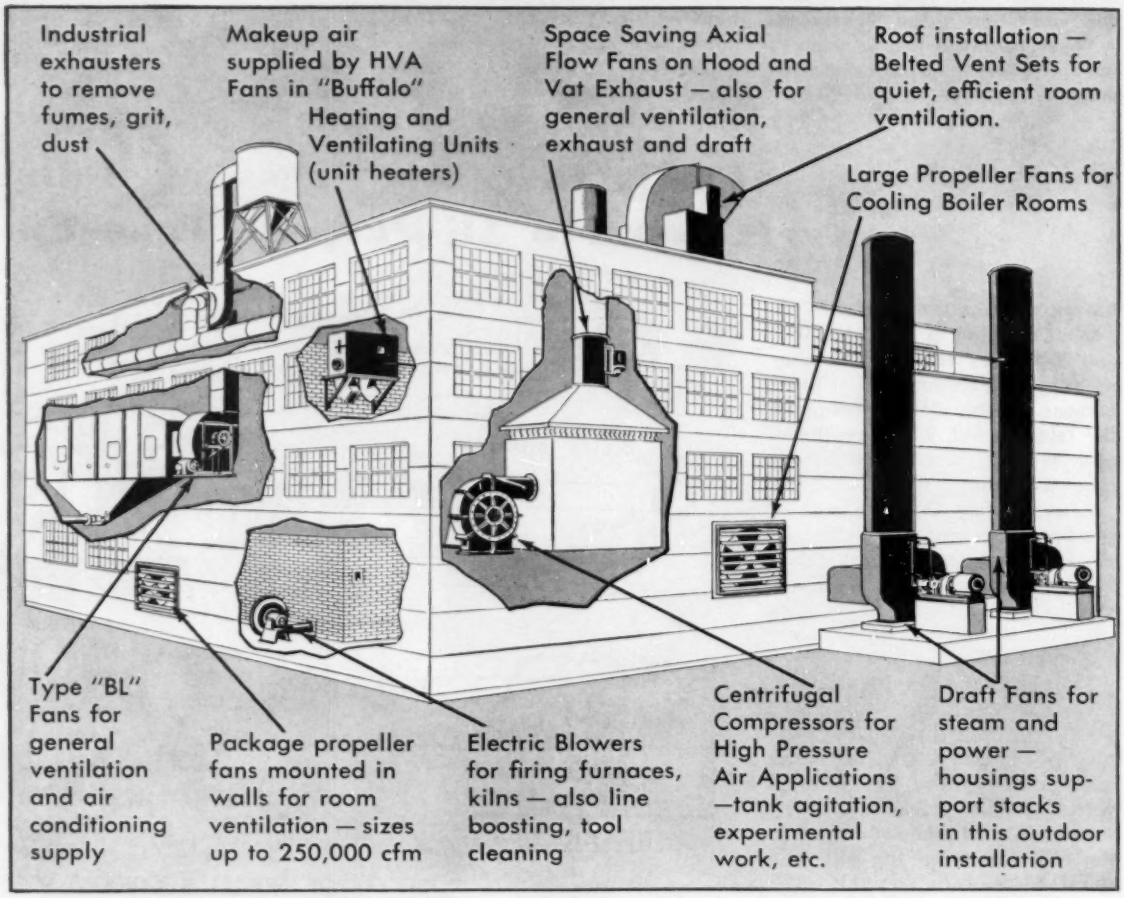
CONTRIBUTOR No. 8782

HAVE YOU ENTERED TI'S PHOTO CONTEST?

The contest ends May 25th.

See TI for April, page 195, for details and contest rules.

AIR . . . BREATH-OF-LIFE FOR THE PLANT!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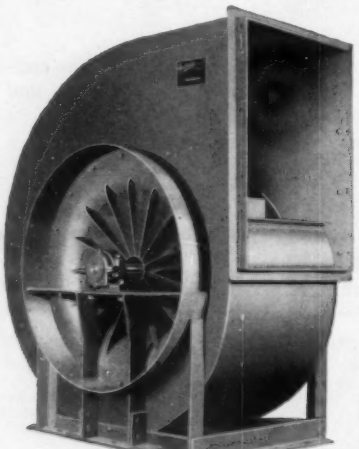
Centrifugal Compressors for High Pressure Air Applications —tank agitation, experimental work, etc.
Draft Fans for steam and power — housings support stacks in this outdoor installation



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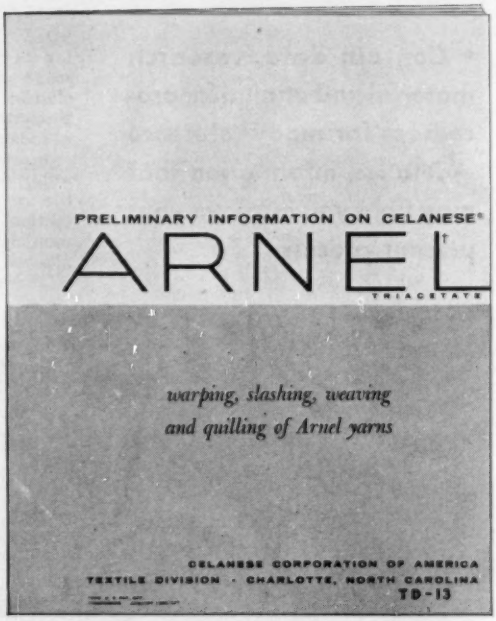
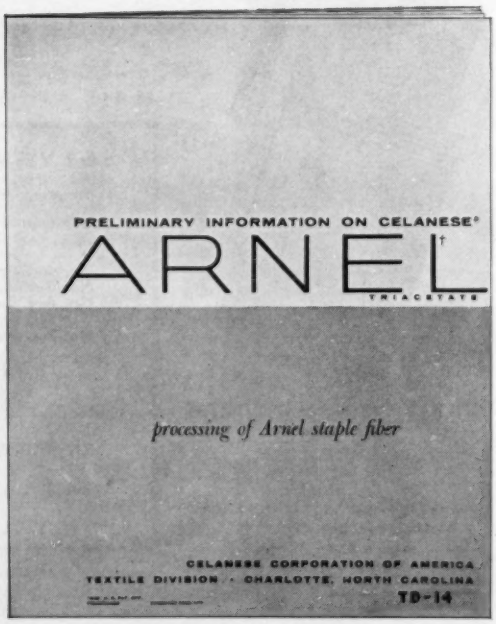


TD-13 "Warping, Slashing, Weaving and Quilling of Arnel Yarns"

This bulletin contains formulas and typical procedures for slashing Arnel spun and filament yarns. In addition, important suggestions are made in regard to fabric constructions to help take advantage of Arnel's intrinsic properties.

TD-14 "Processing of Arnel Staple Fiber"

This 12 page comprehensive bulletin contains much data on the spinning of Arnel staple into yarns. Strength and elongation of typical 100% Arnel yarns and Arnel blended with other fibers are included. Tints suitable for Arnel are listed. In addition, curves showing twist response information are illustrated. The method of identification and determination of Arnel in fabrics or fiber blends is included.



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HOW OTHER MEN MANAGE

Mark Dobby Chain To Locate Errors Quickly

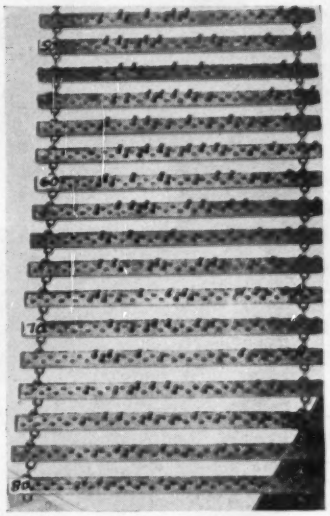
EDITOR TEXTILE INDUSTRIES:

We run a 100-pick pattern on several looms equipped with double index dobbies. The pattern is very much broken up, so that there is no regular sequence of harnesses. It is therefore difficult to find mispicks or mistakes in the chain.

We solved this problem by marking the design off in 10's, and putting a small piece of masking tape on the end of every tenth bar of the chain, marking it at 10, 20, etc. The design paper is similarly marked.

It is now necessary to check only 10 bars of chain to find a mistake.

CONTRIBUTOR NO. 8785



Easily Made Stretcher for Wool Card Aprons

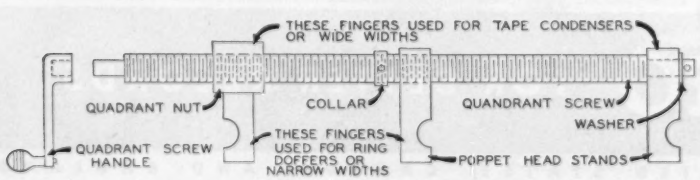
EDITOR TEXTILE INDUSTRIES:

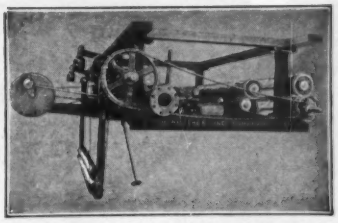
We use an easily made clamp to install leather or rubber aprons on ring doffers and tape condensers. Assembly materials for the stretcher are usually available in any woolen mill.

The device consists of a 17¾-inch quadrant screw such as is used on mules; a handle from the same source, which fits onto the 9/16-inch square head at one end of the screw; 3 poppet head stands, two of which are drilled with ⅞-inch holes and one welded to a quadrant nut; a 15/16-inch collar for the middle poppet stand (for narrow gauge apron rolls on ring doffers), with a ¼-inch screw to hold it on the quadrant screw; and a 1⅜-inch outside diameter washer, with a ⅞-inch hole, held by a ⅜-inch cap screw ⅞-inch long.

This material, assembled as per the accompanying illustration, is cranked with the apron rolls in the poppet head stand grooves. This stretches the apron rolls apart, enabling the carder easily to insert blocks for aprons, and eliminating the need for more than one pair of hands on the job.

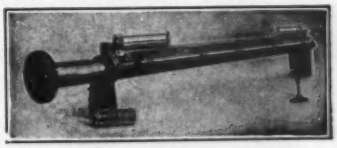
CONTRIBUTOR NO. 8764





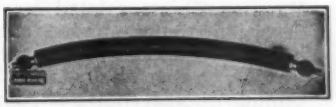
BALL BEARING CLOTH OPENING AND FOLDING MACHINE

for woolens, worsteds, laces, cottons, tricot and pile fabrics. Machine illustrated is fitted with our Patent Adjustable Slot Vacuum Extractor so that the machine combines opening, extracting and folding in one operation.



FOR BEST EXTRACTION

Patent Reenforced Ajustable Vacuum Extracting Box with Automatic Slot Seals. Used in combination with dry cans, scutchers, mangles, and continuous machines.



PATENTED LONG LIFE RUBBER EXPANDER

with rubber 3/4" thick giving longer life and better stretch.

"CORONATION" MOTOR OPERATED SEWING MACHINE

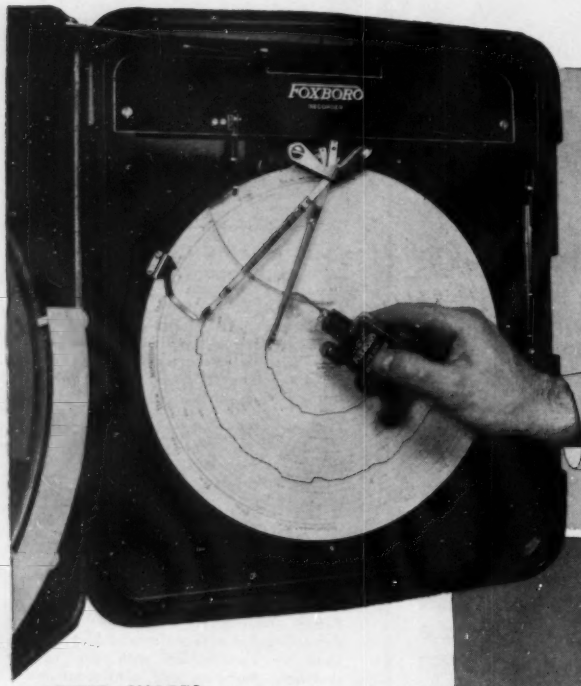
Commences sewing at the very edge of the fabric and the thread cannot become wound around looper. Also made in High Lift Type for bulky fabrics, such as rugs.

BIRCH BROTHERS, INC.

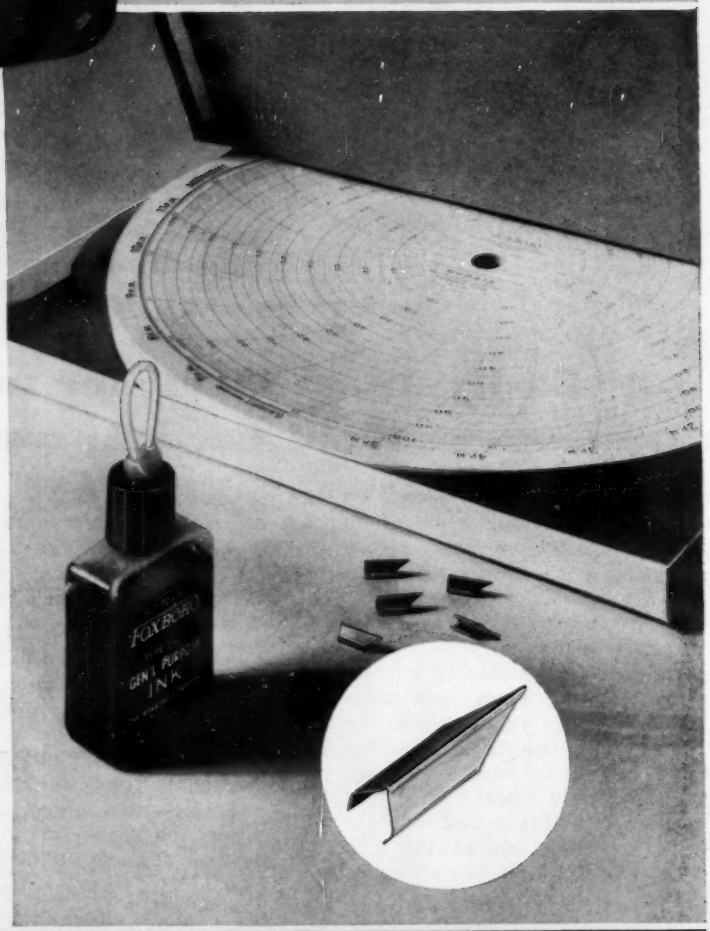
32 KENT STREET
SOMERVILLE 43, MASS.
Phone: PRospect 6-3512
Southern Representative:
John C. Cosby, P. O. Box 212
Greenville, S. C.

BIRCH TREE.

HAROLD W. BIRCH CLIFFORD W. BIRCH
STANLEY W. BIRCH



Better Records



BETTER CHARTS

Humitex Charts printed from high-precision plates, under controlled humidity conditions, on special, high-stability paper. Easy-to-read gray printing against chart's smooth, white background brings out full brilliance of new Foxboro Ink.

BETTER PENS

Non-corroding, stainless-steel pens with positive capillary feed. Controlled special-process points (standard and fine line) assure sharper, cleaner records.

BETTER INK

Five rich, brilliant colors . . . won't clog or "feather" . . . sediment-free . . . flows smoothly under all atmospheric conditions. Specially formulated for new Foxboro Pens and Charts.

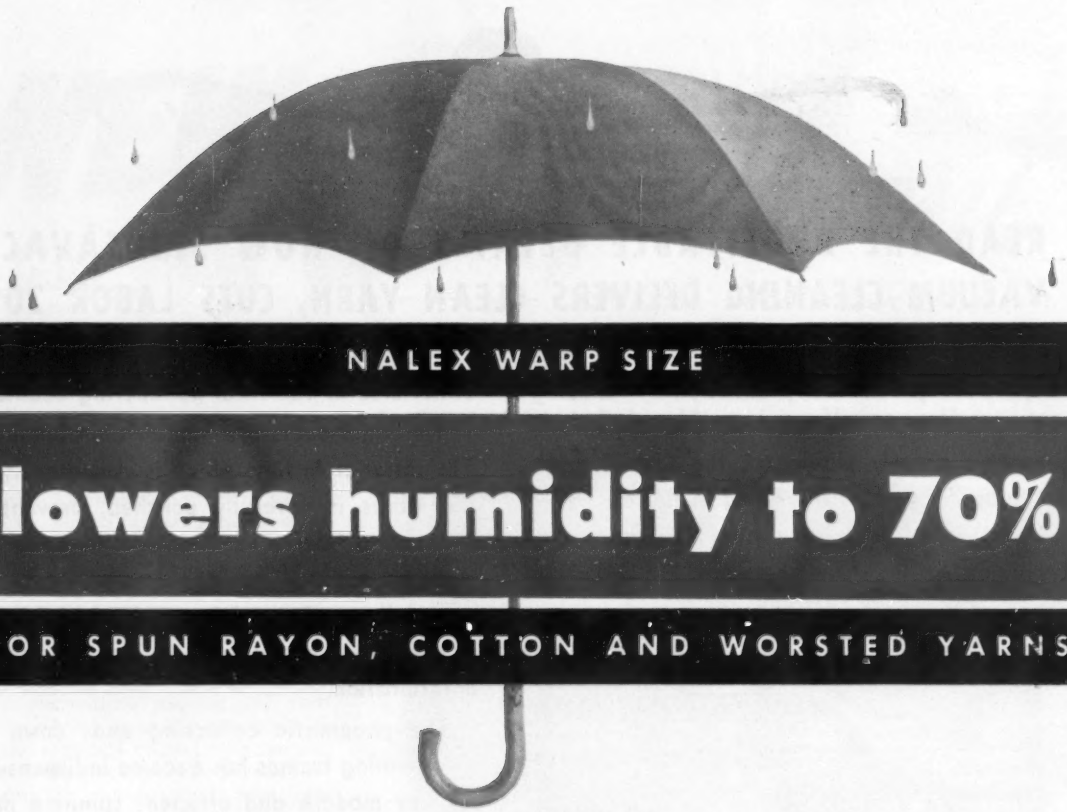
NEW INK DISPENSER

Exclusive-design, easy-to-handle polyethylene "squeeze" dispenser (pat. pend.) gives pin-point control of drop size, ends messy pen-filling. Won't leak or break.

THE FOXBORO COMPANY
485 NEPONSET AVE., FOXBORO, MASS., U.S.A.

FOXBORO REG. U. S. PAT. OFF. **FOR BETTER RECORDS**

FACTORIES IN THE UNITED STATES, CANADA, AND ENGLAND



NALEX WARP SIZE

lowers humidity to 70%

FOR SPUN RAYON, COTTON AND WORSTED YARNS

NALEX assures excellent weaving efficiency at relative humidities as low as 70%. Often even lower.

NALEX cooks quickly. A minimum of size compound is needed. Film forming properties are excellent.

NALEX penetrates readily, which is necessary for combed yarns and high sley constructions.

NALEX minimizes "seconds" by eliminating "hard size, warp clinging, fuzz balls," etc. High quality fabrics can be produced week after week.

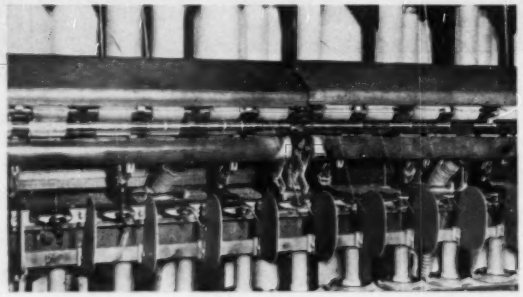
LOW HUMIDITY means better working conditions, lower maintenance costs, and a cleaner weave room.

STARCHES **National** STARCH PRODUCTS INC. RESYNS®

National Starch Products Inc., 270 Madison Ave., New York 16, N. Y. • Atlanta • Boston • Philadelphia
In Canada: National Adhesives (Canada) Ltd., Montreal

READ THE PROFITABLE DETAILS ON HOW SPINSAVAC'S VACUUM CLEANING DELIVERS CLEAN YARN, CUTS LABOR 30%

SpinSaVac's pneumatic suction of ends appreciably increases production by reducing the number of ends down. The pneumatic suction greatly eliminates the lashed ends. Quality of yarn is increased because wild or flying ends and resultant doublings are eliminated.



Spindle assignment is as much as 30% greater per operator. Yet, the operator is less hurried because time-consuming cleaning for ends down is eliminated.

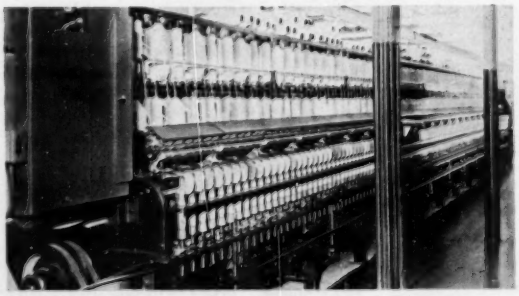
Materials drawn into the filter connecting cabinet by SpinSaVac are ready for re-use, resulting in a considerable saving of raw materials. As it is not necessary to reclean yarn, stronger, better quality yarn results. Scavenger rolls and roller laps are eliminated making possible a greater saving of top and bottom rollers.

Filter connecting cabinets are equipped with a special motor and a high duty fan designed in accordance with the latest knowledge in the field of aero dynamics. The modern design of SpinSaVac allows complete air cooling of the motor.

The collected yarn is readily removed from either side of the filter connecting cabinet.

The main ducts are made from aluminum. The internal surface which is in contact with the fibres is carefully polished, preventing damage to fibre. The spigots connecting the suction nozzles to the main duct are especially made and treated with flexible, ozone resistant neoprene to protect against deterioration.

The pneumatic collecting ends down on ringspinning frames has become indispensible for any modern and efficient spinning mill. SpinSaVac's trouble-free operation delivers better quality yarn at a considerable saving in labor and material.



For free brochure on SpinSaVac write to

SPINSAVAC
CORPORATION
1438 SOUTH TRYON STREET
CHARLOTTE 3, N. C.

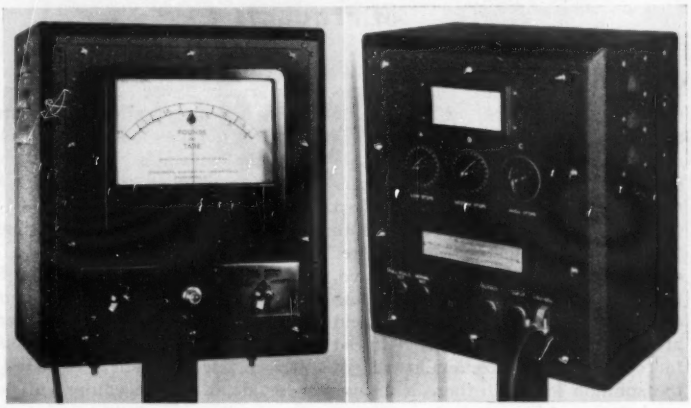
NEW Equipment AND MATERIALS

Picker Tare Weight Indicator Maintains High Lap Uniformity

Developed jointly by Kendall Research Laboratories of Paw Creek, N. C., and Strandberg Engineering Laboratories and now being manufactured for sale to textile mills is the Picker Tare Weight Indicator, Model M-101, which makes highly accurate measurements of tare as determined from the moisture content of the lap as it is being made.

A conventional rake or other suitable contact assembly is utilized to make electrical contact with the cotton being processed. The moisture information collected is, in turn, converted into pounds of weight to be added to the pan of the picker lap scale and the "pounds of tare" indicated by the needle on the face of the instrument.

This new instrument is basically an application extension of "The Moisture Monitor" which is being used in slashing and other wet processing operations [TI for Nov., 1952, p. 105].



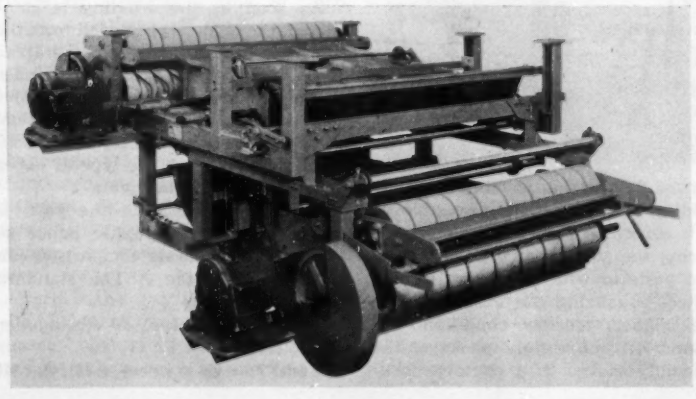
Front and rear views of the Picker Tare Tare Weight Indicator.

Strandberg Engineering Laboratories, Inc., 416 Market St., Greensboro, N. C.

More data? Write ◂ or use card, p 181; list E-101

Double Tier Scray for Wet Processing

A new patented double tier scray makes possible the storage of cloth when processing two strands, eliminating stoppage or the slowing down of production machinery. Applications have been made to printing machines where white goods are stored in the bottom tier and the grey goods in the top tier.



Each scray is designed with automatic control to stop when filled with cloth and to start again automatically after a predetermined yardage has been removed.

Single or double tier versions of this scray are reported in successful operation with printing machines; dyeing, finishing, and mercerizing ranges. Scrays are in operation up to 120" in width and up to 1500 yards capacity. Scray is also available in offset design.

Cook P & N Machine Co., Inc., 365 Dorchester Ave., Boston 27, Mass.

More data? Write ◂ or use card, p 181; list E-102

Rubberized Check Straps Last Minimum of 10,000 Loom Hours

Large-scale field tests in more than 100 textile mills over the past year show a new rubberized check strap for looms effecting substantial savings.

Made of special synthetic rubbers and fabric, the new check strap is said to be far more durable, lasting a minimum of 9,000 to 10,000 loom hours. Some of them have been operating as long as 14 to 16 months and are still in good condition, according to the announcement.

The new straps reduce costs on this item alone by some 25 to 50 per cent. Other substantial savings are in labor, maintenance, and less "down time."

The Dayton Rubber Co., Dayton, Ohio.

More Data? Write ◂ or use card, p. 181; list E-117

Diazotization Simplified by New Series of Products

Dependable, stable, concentrated, base formulations now available under the trade-mark of "Azomatic Solutions" simplify the process of diazotization to a great degree, because dyers and printers of textiles now need merely stir the required quantity of "Azomatic Solution" into acidified cold water and, in a matter of seconds, they have a concentrated, tar-free diazo. No nitrite, no stabilizers or materials other than the acid are necessary. The nitrite required for complete diazotization is part of the solution in which there is an exact balance of base and nitrite.

Better penetration and greatly improved fastness to crocking are provided, thereby helping to avoid "seconds" and "rejects." Besides, because the new series assures uniform diazos, shades are brighter, cleaner, deeper, and can always be duplicated.

Considerable time is saved with the ready-to-use formulations because the preparation for dyeing or printing textiles need not be delayed by the straining necessary when bases were used in the form heretofore available.

Because there are no decomposition products or undiazotized base left with the use of "Azomatic Solutions," there is also a great saving in clean-up time. Plant equipment is easily cleaned after a run because no tarry decomposition products have been deposited on equipment during the dyeing or printing and a simple hosing or rinsing with plain water is all that is necessary to prepare the equipment immediately for the next run.

Augusta Chemical Co., Augusta, Ga.

More Data? Write ◂ or use card, p. 181; list E-118

Synthetics Can Be Processed at Higher Speeds with this Mechanical Tension Device

A new tension device designed to facilitate processing of synthetic yarns offers these advantages:

(1) There are no "strip-backs" when running low twist synthetics.

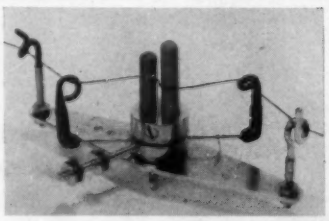
(2) The device is purely mechanical.

(3) The compensating action is visible—the operator can see at all times what the device is doing to even up the tension on the yarn.

(4) Tension is maintained within a variation of ½ gram.

(5) The device compensates for a condition where the yarn speed builds up as the package size increases.

When tension increases on the yarn from the supply package entering the device, the movable assembly holding the two Heanium eyes moves in a clockwise direction, thereby reducing the surface of the two Heanium posts to which the yarn is subjected, equalizing the tension. When the higher tension condition has wound off the supply package, the assembly moves in a counter-clockwise direction back to the original setting for the normal and desired tension automatically.



The basic desired tension is arrived at by the setting of the two Heanium posts and the distance of one or two of the adjustable weights away from the collar in which they are attached to the lever arm.

The device is normally mounted in a vertical position and will control tension on yarn being pulled down through it as well as yarn being pulled up through it; however, it can also be used in a horizontal position.

Heany Industrial Ceramic Corp., New Haven 3, Conn.

More Data? Write ◂ or use card, p. 181; list E-119

Test Yarn Appearance Faster, Accurately

Now available to facilitate tests for the appearance of yarns according to the procedure outlined in ASTM Tentative Test Method D 180-54T is a machine called the Vitno-Winder which was developed by the Netherlands Fibre Institute T.N.O.

Yarn to be tested is automatically wound by the machine onto two rollers which are grooved according to ASTM standards (the machine may be supplied with five pairs of these rollers to be used for the different yarn number groups). One of these rollers is driven by an electric motor, the speed of which can be varied.

Thus, in a few minutes correctly spaced windings of yarn are obtained which cannot be displaced.

Inserted between the rolls and under the evenly spaced yarn windings is a holder for sensitized photographic paper. One side of this holder is black and the other white to permit inspection of the yarn during winding — black side is turned up for natural colored yarns and white side up for yarns dyed in dark shades.

As soon as the winding is completed, the holder is removed from the apparatus, unexposed photographic paper inserted in the holder under green or yellow light, and the holder put back in its original position. Paper is then exposed for a few seconds, depending on the type of paper and intensity of the light.

Thus a silhouette of the yarn is recorded on photographic paper so that a more accurate comparison can be made with the ASTM standard photos.

Arnold Serton Inc., 10 Rockefeller Plaza, New York 20, N. Y.

More Data? Write ◂ or use card, p. 181; list E-120

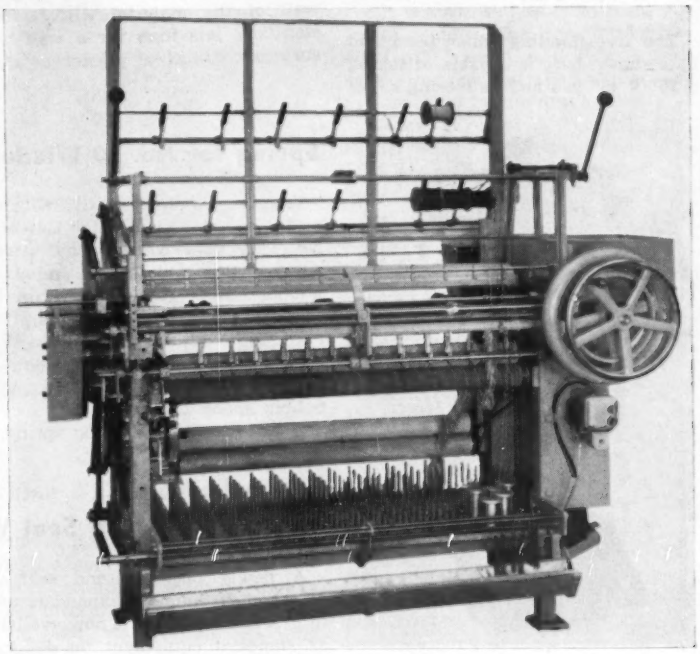
Trimmings Machines Make Up To 200 Stitches Per Minute

Now available to mills in the United States and Canada are trimmings machines, manufactured by Charles Leek & Sons Ltd., of Leek, Staffordshire, England, which will produce lamp shade fringes, for instance, at a speed of 200 stitches per minute. The Charles Leek line of these machines includes units for making a variety of products extending from lamp shade fringes to dish cloths, and from lingerie trimmings to bedspreads.

High production of these machines is attributed to the general application of simple harmonic motion derived from eccentrics for the movement of fast reciprocating parts, including needle motion and filling feeder bar motion. Cam-operated motions are employed only where small amounts of movement are required and where wear and vibration at high speeds are insignificant.

Textile & Ginning Accessories Co., 328 Grey St., Brantford, Ontario, Canada.

More Data? Write ◂ or use card, p. 181; list E-121



Equipment Provides Automatic Quality Control at Wool Card

Recently made commercially available for woolen mills was the "Autocount," an electronic device developed by the Wool Industries Research Association in England for automatically controlling the weight per unit length of rovings produced on woolen cards so that it is kept very close to the desired count.

Use of the equipment on a card results in (1) fewer difficulties encountered at later processes, (2) increased production and less waste because webs of the desired quality only are made by the card, (3) reduction of fabric defects such as barriness or streakiness due to yarn count variations, (4) card attendant does not have to repeatedly make tests for uniformity, (5) considerable time is saved by the reduction in the amount of time needed between the "filling-up" period following stripping, (6) some gear changing is eliminated when producing blends of different weights, (7) valuable information from weight readings is recorded on a chart for future reference.

Here is the way it operates:

A photoelectric cell and a light source of stabilized density are mounted in a head attached to the wool card. The light is directed through the card web to a reflecting mirror underneath, and back through the web into the photoelectric cell. The web attenuates the light reaching the cell, the degree of attenuation providing an indication of the density of the wool or the weight per unit area.

Controls are pre-set to enable the equipment to be adjusted for stable operation on white, black, or colored wools. A further control made at the photoelectric head unit, adjusts weight of wool being produced.

Automatic control of wool weight is done by changing speed ratio between final doffer and condenser and main cylinder.

Equipment can be installed in two ways: (1) For fully automatic control with measuring, recording, and controlling units; or (2) Where fully automatic control is not desired, measuring and recording units only may be utilized.

Fielden Instrument Div., Robertshaw-Fulton Controls Co., 2920 N. 4th St., Philadelphia 33, Pa.

More Data? Write ◂ or use card, p. 181; list E-122

Machine Handles Larger Loads of Hard-to-Dye Fabrics

Special features of the new Burlington "Hy-Press" dye machine for woven fabrics and for flat knitted fabrics such as tricot, Raschel, and some Simplex fabrics of nylon, Dacron, and Orlon are:

(1) 50 pounds working pressure enables operation up to 300 F.

(2) 2,000 to 4,000 yards of woven cloth can be handled at one time, depending on weight of fabric—1,000 to 1,500 pounds of knit goods. Load by batching fabric on stainless steel perforated beam by means of tension controlled batcher. Correct batching is essential.

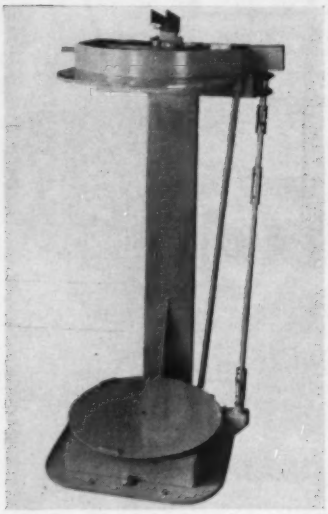
Other features are two-way flow and complete automatic control.

Burlington Engineering Co., Inc., Graham, N. C.

More Data? Write ◂ or use card, p. 181; list E-123

Coiler Accommodates 20" x 48" Can

The free-standing coiler head and base shown here is capable of taking a 20" x 48" can and delivering sliver



weighing from 7 grains per yard to 12 ounces per five yards.

R. C. Berker Co., Inc., Victoria St., Thornton, R. I.

More Data? Write or use card, p. 181; list E-108

Insulation and Ceramic Finish Combined in Single Building Block

Development of a unique cellular glass insulating material which combines both insulation and ceramic finish in a single unit has been announced.

Called "Duraface Foamglas," the new material provides a durable, impact-resisting surface along with high insulating and moisture-proof qualities. With it a wall completely insulated and surface-finished can be erected in one operation. No finish coating is required to protect the insulation. Unsupported walls can be built of the blocks because of their rigidity and high compressive strength.

Like regular "Foamglas," the material is completely inorganic. Thus, it will not rot or deteriorate and is not affected by fungus. Being made of pure glass, the material is resistant to nearly all chemicals. While the white ceramic surface (¾" thick) needs no paint or other surface finish for durability and architectural appearance, various types of paint can be applied.

Maintenance costs for an insulated wall of the material will be substantially less than for a wall with surface coatings of plaster or other finish. The material cannot burn and will not transmit fire.

Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa.

More Data? Write or use card, p. 181; list E-109

Spring for No. 50 Winder Assures Better Fitting Spools

A spring has been designed for use on the spindle sleeve of the Universal No. 50 winder bobbin spool attachment so that both plastic and paper bobbin spools can be used on the same spindle. [Bore diameters of the two types are not always identical, creating a production problem in mills where the plastic and paper bobbin spools are used.]

A flat steel, three-prong spring, it can be positioned in either one of two circular recesses in the spindle sleeve with the prongs extending toward the base of the sleeve. A collar that tightens over the ends of the prongs also serves as a stop for positioning the bobbin spools on the sleeve.

Universal Winding Co., P. O. Box 1605, Providence 1, R. I.

More Data? Write or use card, p. 181; list E-110

Expander End Seal Waterproofs Bearing Area

A newly designed end seal for 4¼" and 6" diameter expanders used in processing textiles is now available as standard equipment on 4¼-inch and 6-inch expanders and is also furnished as replacement equipment for earlier model expanders in the same size range.

Especially designed to waterproof the bearing area, the end seal is precision molded in one piece to provide a close but non-contacting fit around expander axle. Grease, injected through a cadmium plated Alemite fitting, serves as an effective sealant. Only one fitting is provided at each end, and it is located on the stationary axle so expander may be lubricated while in use.

A water flinger that throws off most moisture before it reaches bearing area is included as part of the seal design.

Mount Hope Machinery Co., 15 Fifth Street, Taunton, Mass.

More Data? Write or use card, p. 181; list E-111

Smaller Instrument for Abrasion Tests

Now available to those laboratories desiring surface abrasion or pilling tests is the CSI-Surface Abrader.

One of the features of the CSI-Stoll Quartermaster Universal Wear Tester (surface abrasion) was redesigned into a smaller instrument. In redesigning, the aims were to furnish a unit at a reduced cost. This was accomplished by using smaller castings and eliminating the air pump.

The unit is capable of reproducing either unidirectional or multidirectional abrasion of uniform intensity over the abraded area. The method consists of inflating the test specimen by controlled air pressure and accurately controlling the pressure of the abradant on the specimen.

This surface abrasion procedure makes it possible to control the tension of the specimen, the areas of contact and the pressure between the specimen and the abradant, and minimizes disturbances arising from unevenness of specimen and interference of fabric debris.

Custom Scientific Instruments, Inc., Arlington, N. J.

More Data? Write or use card, p. 181; list E-112

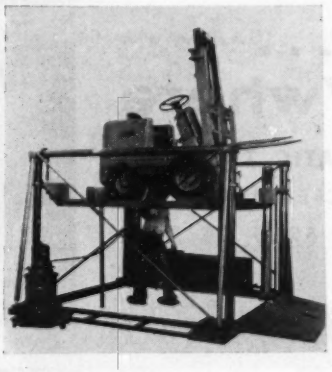
Easy Way to Maintain Materials Handling Equipment

With the Colson "Lubrilift," trucks and tractors may be safely and quickly elevated to any desired height for lubrication or repair of hard-to-get-at places. Thus costly breakdowns caused by improper servicing are eliminated.

The unit is offered in electric-hydraulic or electric-mechanical models, in capacities ranging from 6,000 to 12,000 lb. Five-foot lift is provided; may be mounted on surfaces of floors or set in shallow pits for flush mounting.

The Colson Corp., Elyria, Ohio.

More Data? Write ◀ or use card, p. 181; list E-113



Wool Fabric Shrinking Machine 3 Times Faster

Uniform shrinkage without damage to the finish and texture of woolen and worsted woven and knitted fabrics processed on it is provided by the "Sucaltex" shrinking and processing machine which is, according to the manufacturer, three times faster, requires only a quarter of the floor space, reduces costs by one-half to two-thirds, and requires far less maintenance. The cloth can be used immediately after it leaves the machine.

In addition to satisfactory shrinkage results, design of the machine admits interchangeable units that enable insecticide, water repellants, filling and softening processes to operate. Semi-decating and napping brushes can also be mounted for additional finish or refinish.

The fundamental principle of the system is passage of relaxed fabric through a specially designed steaming area, instantaneous drying by infra-red projection, together with cold setting and stabilization, enabling processed materials to be put into use immediately. Process is automatic—while a piece of fabric is being processed, the operator can be performing other duties such as preparing the next piece for processing.

Every processing factor can be varied if desired to suit individual requirements. A single, easily accessible master control panel provides simple, unified, and instantaneous control of operations.

Sucaltex Inc., 1775 Broadway, General Motors Building, New York 19, N. Y.

More Data? Write ◀ or use card, p. 181; list E-114

Drape in Cotton Fabrics Can Now Be Studied

The F.R.L. Drapemeter for the study of drape in cotton fabrics, originated by Fabric Research Laboratories, Inc., and completely described in TEXTILE INDUSTRIES for September, 1951, pp. 170, 173, and 175 ["Instrument for Studying Drape," by Simon Williams], is now available for textile research and testing.

Here is a brief description of the working principle of the apparatus:

One of two synchronized turntables supports the draped sample and a standard circular chart is mounted on the other. A light beam from a small lamp is focused on a photocell, both elements being mounted in a movable unit. This optical system scans the draped sample and automatically and continuously positions itself at the edge of the fabric.

The movements of the photocell are recorded on the chart by a pen which is mounted in a carriage which is mechanically connected to the scanning unit. Thus, when the turntables have performed one complete revolution, an accurate vertical projection of the draped sample is drawn on the circular chart.

The area of this projection can then be determined with a planimeter, or an integrator attachment is available with the machine which automatically and simultaneously calculates this area.

For convenience in comparing different samples, the term "drape coefficient" is used, which is defined as the per cent of the annular-ring area covered by the drape sample.

Modern Machine & Tool Co., Inc., Route 9G at Pleasant Plains Rd., Staatsburg, N. Y.

More Data? Write ◀ or use card, p. 181; list E-115

Size and Finish with this Product

Textile applications for Permaloid 170, an alkali-soluble as well as solvent-soluble vinyl acetate co-polymer, include:

(1) Sizing of acetate, Bemberg, and Dacron yarns to be utilized in loom-finished fabrics;

(2) Finishing—it imparts a crisp, firm, spot-resistant finish which may be dry cleaned; can be modified with plasticizer to yield softer hand without destroying spot-resistance or dry cleaning proofness.

The product yields clear solutions from which coatings or films may be laid down, delivering high water resistance, excellent grease resistance, good flexibility, very good strength, high gloss, high abrasion resistance, and water-clear clarity.

Colloids, Inc., 394-398 Frelinghuysen Ave., Newark 5, N. J.

More Data? Write ◀ or use card, p. 181; list E-116

Plastic Trailer for Transporting Textiles

A plastic trailer specifically designed to transport textiles is composed of a series of panels made of Lamicor, a fiberglass-reinforced plastic that is one-fifth the weight of steel but is stronger than steel on a pound for pound basis. The Lamicor panels are joined by outside aluminum posts.

Measuring 33 feet long, 8 feet wide, and 12½ feet high, the trailer is capable of carrying a payload of as much as 30,000 to 35,000 pounds.

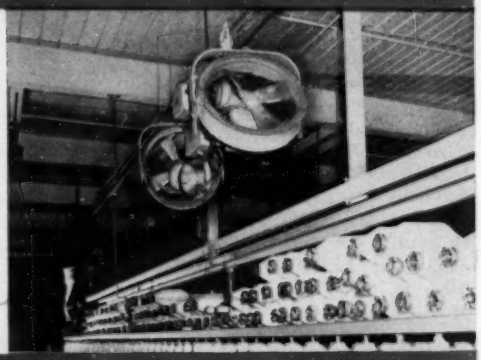
Two translucent fiberglass roof panels in the front and rear of the van provide improved visibility for reading shipping labels and loading lists. This feature helps speed up loading and unloading.

An important advantage of the plastic trailer is that it reduces main-

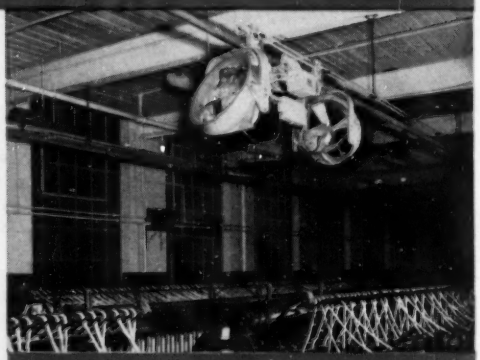
Anywhere . . . EVERYwhere

LOUDEN AUTOMATIC TWIN-FAN CEILING CLEANERS KEEP CEILINGS CLEAN AND FREE OF LINT

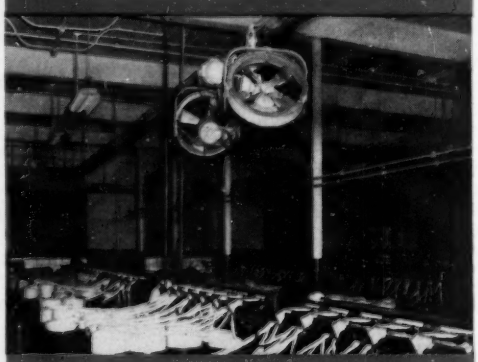
SPINNING FRAMES



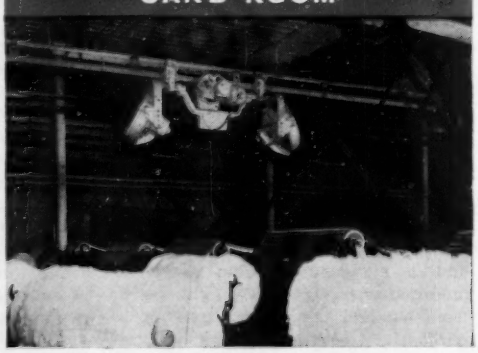
ROVING FRAMES



DRAWING FRAMES



CARD ROOM



The Louden Twin-Fan Ceiling Cleaner is found in more and more mills because of the excellent job it does in keeping ceilings continuously clean and free of lint. The twin fans sweep both sides of the track simultaneously. Each fan is independently adjustable and can be pointed in any direction, thus meeting the special needs of your room. It cleans without disturbing machine processes going on below. The threat of "gouts" or "slubs" is eliminated, together with the need for manual blowing down, or ladder climbing to adjust stationary fans. There are no dead air pockets; humidity is even throughout. Automatic shut-off and turn-on for passage through areas where blowing is not needed is one of the features available. And you can be sure of highest dependability, efficiency and economy because of Louden's long experience in building Monorail Equipment of every type. Let a Louden engineering representative tell you more, what it will cost, what you will save. Your inquiry will receive prompt attention.

THE LOUDEN MACHINERY COMPANY
5205 Court St., Fairfield, Iowa
A Subsidiary of Mechanical Handling Systems, Inc.

Louden

MONORAIL & CRANES

SINCE 1867 . . . THE FIRST NAME IN MATERIALS HANDLING

tenance costs. Here are the reasons: strength and durability of the Lamicor panels; need for painting is eliminated because the color of the panels is molded into the Lamicor material; and repairs, when necessary, are simple, quick and inexpensive.

Strick Plastics Corp., Philadelphia, Pa.

More Data? Write ◂ or use card, p. 181; list E-103

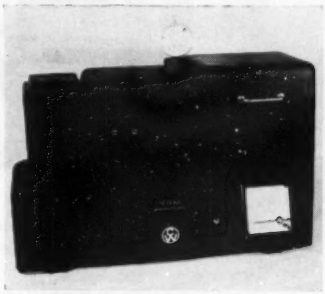
Duplicate Shades Exactly and Quickly

An instrument that quickly and accurately measures intensity of colors so that shades may be duplicated exactly is called a Spectralpolarid.

It measures the degree of transparency, from zero to 100 per cent, of dyes, plastics, glass, gases, liquid solutions, etc.

A small quantity of a standard color is compared with a test specimen to determine their similarity. Through these two samples are passed modulated light beams, and a meter registers the respective intensities.

Stability and ease of operation of the Spectralpolarid are among its outstanding features.



Curtiss-Wright Corp., Wood-Ridge, N. J.

More data? Write ◂ or use card, p. 181; list E-104

Doubler Guides Permit Higher Speeds

Longer-lived AlSiMag 193 doubler guides for Universal holders have been announced. Yarn quality can often be improved through the uniform tensions delivered by these guides. They are extremely hard and durable, thus permitting higher speeds and higher tensions, even on very abrasive yarns. Being homogeneous, with no surface "skin" to wear through, they greatly reduce the possibility of yarn damage from undetected guide failure. Their longer life results in the lowest guide cost per pound of processed yarn.

These AlSiMag 193 doubler guides are electrical conductors and thus help control static when grounded through the metal holder. Satin finish is standard; other finishes can be supplied on special order.

Universal Winding Co., P. O. Box 1605, Providence 1, R. I.

More data? Write ◂ or use card, p. 181; list E-144

New Water Repellent Series

A new series of durable water repellents is marketed under the name Ranedare. Each Ranedare water repellent was created to meet specific demands in the textile industry. All three products have been formulated with high shelf-life, easy running properties with low foam, excellent dilution and mixing properties. They all produce durable, dry water repellent finishes. The use of these products keeps yellowing and tensile strength losses at a minimum.

Ranedare R for synthetics is designed specifically for use on synthetic fabrics with crease resistant and stabilizing effects to provide durable water repellency, shrinkage control, wrinkle and spot resistant effects. This product is versatile in that the hand and finish can be varied to suit most any fabric.

Ranedare C is for use on cotton.

Ranedare S is a silicone for synthetics. It works exceptionally well on such fabrics as velvet and sheers. Besides synthetics, it has been found to work especially well on cotton and wool. Both the Ranedare R and Ranefix Catalyst are considered to have high shelf-life and do not require excessive curing for polymerization.

Metro-Atlantic, Centredale, R. I.

More Data? Write ◂ or use card, p. 181; list E-105

Balance Determines Moisture Content

An improved balance for moisture determination, known as Model DB-5, has a single calibrated stainless steel beam and a vernier slide weight, with coarse and fine adjustments, which allows the accurate determination of moisture in a 10 gm sample, from 0.1% to 100%.

Two additional slide weights are provided: one weight provides for the taring of containers weighing up to 45 gm; the second slide weight may be positioned to tare 2, 5 or 10-gm sample weights. These features, plus the addition of an improved oil damper, result in quicker moisture determinations, and without the use of loose weights.

Other new features include an external weight to permit easy adjustment of sensitivity and the large tare weight which can be locked in position. The calibrated beam assembly is positioned directly over the torsion mechanism to minimize effects of vibration. The use of a new corrosion resistant alloy, Elgiloy, for the torsion bands results in increased service life of the balance.

The Torsion Balance Co., Clifton, N. J.

More Data? Write ◂ or use card, p. 181; list E-106

Tests Ironing Qualities

Now available is an apparatus designed for measuring the dimensional changes during ironing of various types of textile fabrics, specifically according to German textile standard test DIN 53801. A standard iron pressing is given to the cloth being tested by an electrically-heated iron with a surface of 60 x 20 cm.

The sample is laid on the felt-covered ironing table and spread out with a metal spreader so that it does not have to be touched by hand. A cotton ironing cloth containing 400 grams of water per square meter is put over it, and the iron is lowered onto this cloth over the sample by a handwheel until the weight of the iron rests on the sample. The iron is allowed to stay for 15 seconds, after which time it is removed and the material under test allowed to stand for at least an hour under normal relative humidity conditions. Then the sample is measured to determine the percentage of shrinkage.

Karl Frank Co., Weinheim-Birkenau, Germany.

More Data? Write ◂ or use card, p. 181; list E-107

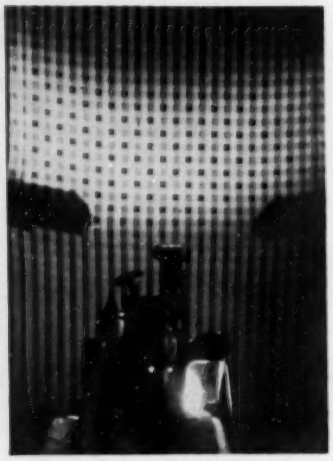
Mechanical Stroboscope Is Simple, Efficient

A mechanical stroboscope which has its own intense white light is now available. Called the Hetherington Mecho-Strobe Lite, it is simple in design so that mill personnel can quickly learn to use and maintain it.

One application of the equipment is illustrated in the righthand photo —for examination of patterns in fast moving fabrics.

Here the pattern of the fabric in the area lighted by the Mecho-Strobe (it can be seen at the bottom of the photo in the center) appears to stand still, yet the 42" wide cloth is moving at the rate of 100 ypm. Light flashes are at a rate of 2600 per minute. Depth of the light on the cloth from top to bottom is 20", and this can be increased by moving the light farther away from the cloth and increasing its intensity.

A curved mirror, driven by an electric motor through a belt-type variable speed drive, catches the light rays from the powerful sealed beam light and intermittently reflects these rays onto the fabric or other object being examined. Speed of the mirror can be varied to provide from 600 to 4000 flashes per minute as required to stop movement of the pattern (see left photo).



Guider, Roll and Service Co., P. O. Box 3747, Peninsula Sta., Daytona Beach, Fla.

More Data? Write ◂ or use card, p. 181; list E-124

Automatic Controllers for Use with "The Moisture Monitor" in Wet Processing Operations

Two types of electronic controllers have recently been placed on the market for use in conjunction with "The Moisture Monitor," an instrument for continuous indication of the amount of moisture in yarn or cloth being processed on slashers, tenters, and dryers (TI for Nov., 1952, p. 105). These rugged, dependable units are designed for connection without any modification whatever to Moisture Monitors already in use in textile mills as well as new instruments.

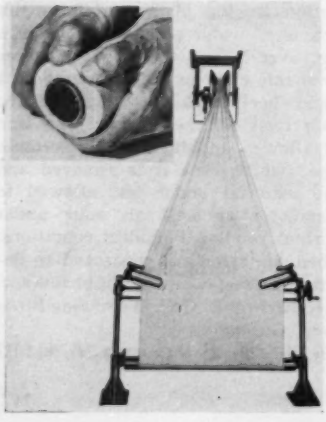
The indicator supplies moisture information to the controller which in turn regulates the machines or devices that may be connected.

Type No. SC-500 is a single channel electronic switch. Its input is adjustable so that if the moisture regain exceeds or drops below a preset value, a double-pole, double-throw switch will be actuated. This controller is intended for general purpose applications of signalling, alarm, and stop motion. The intermittent occurrence of wet spots or streaks can be monitored by alarms, or machines can be stopped when these occurrences become pronounced.

Type No. SC-550 is intended for drying process control, such as in slashing and tentering. The equipment contains two separate channels, which are adjusted to the upper and lower limits of permissible moisture variation, such as the ends of the "Normal" band on the Moisture Monitor. Adjustable time delay relays are incorporated for the purpose of applying the proper amount of correction and delay. As the moisture varies beyond the permissible limits, proper correction will be applied to machine speed and/or cylinder temperature.

Strandberg Engineering Laboratories, Inc., 416 West Market St., Greensboro, N. C.

More Data? Write ◂ or use card, p. 181; list E-125



New Guider Roll Offers Better Grip, Longer Life

A new guider roll provides a more positive grip on fabrics and is far more durable.

Key to the success of the new roll is MH-31, the rubber-like material of which the roll itself is made. Specially formulated for the job, MH-31 is much softer than previous materials and as a result makes rolls that hold fabrics tenaciously with only light pressure applied. The elimination of excessive pressures means that even delicate fabrics, such as light rayons, marquisettes, lace, and gauze, may be opened or guided without danger of fraying.

Use of the guider roll in new installations where sheeting and other fabrics are opened horizontally at high speeds completely eliminates need for a scutcher. In plants where scutchers are replaced with opening equipment using the new guider rolls, elimination of damaged goods alone results in savings that normally will more than repay the cost of the new equipment in just a few months.

A set of test rolls, in continuous

operation for more than seven months. under actual production conditions, have shown no noticeable wear.

The new guider roll is now being included as standard equipment on all applicable Mount Hope devices. In addition, individual rolls are also available as replacement equipment for earlier Mount Hope machines or for improvement of other makes of cloth and plastic sheet handling devices.

Mount Hope Machinery Co., 15 Fifth Street, Taunton, Mass.

More data? Write ◂ or use card, p. 181; list E-126

Chart Drive Saves Time and Paper

An improved "Multi-Speed" chart drive has been developed for the Brown "Electronik" single and multi-record strip chart recorders, for both textile laboratory and production use. It allows the dialing of any one of eight different chart speeds, with two speed ranges available for each recorder.

Mounting directly on change gear hubs, it is installed as easily as change gears. Substantial savings are realized in time and chart paper, as chart speeds can be instantly changed as needed.

Insco Company, Groton, Mass.

More data? Write ◂ or use card, p. 181; list E-127

Interesting Plastic Foam

An unusual plastic foam called Curifoam is suitable for a variety of applications, including backing for rugs and carpets and interlinings for garments.

Curifoam is produced in a range of densities from elastic to rigid. It is turned out in flexible sheet stock, natural or colored, approximately one yard wide and in thicknesses from 1/16 inch to 6 inches, and in a range of densities from 2 to 5 pounds per cubic foot.

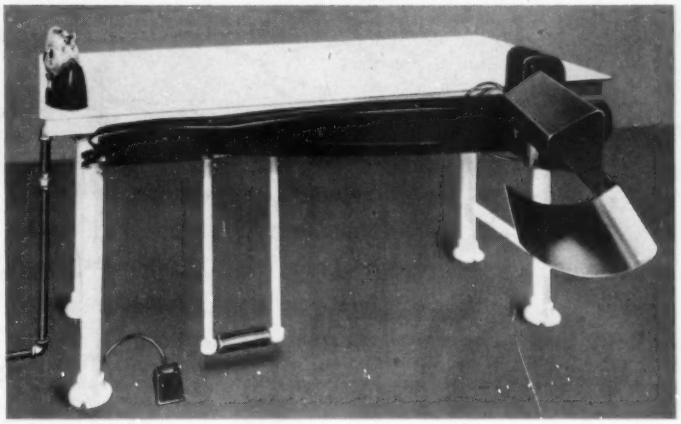
It will also be available as a two-component kit, requiring only mixing of two liquids for various foamed-in-place rigid applications.

Curifoam resists abrasion, can be sewn, fabricated with common woodworking tools, washed, and dry-cleaned. It resists oxidation, mildew, and vermin.

Curtiss-Wright Corp., Wood-Ridge, N. J.

More data? Write ◂ or use card, p. 181; list E-128

Automatic Expanding Hosiery Examining Form Is Air Operated with Electrical Control



Simplicity of design, rugged construction, and ease of operation combine to make the "Reading" Automatic Expanding Examining Form outstanding for examination of fine gauge, lightweight stockings. Among its many advantages are:

(1) Production increased to double that of the hand-operated "Reading" expanding examining form.

(2) Minimum operator fatigue resulting from simplified design.

(3) Provides an absolutely smooth and solid surface for perfect inspection without damage to fabric.

(4) Form corresponds to the shape of the stocking; is divided lengthwise and expands the stocking from toe to welt.

(5) Air operated and electrically controlled (no motor required).

(6) Adjustment screw provides for regulation of the stretch.

(7) Angle of form mounting ideal for inspection procedures by operator.

(8) Space requirements held to a minimum—69¼" wide x 71¼" long.

(9) Electrically operated stocking counter built into table and controlled by electric eye at time of stocking delivery from form.

(10) Easily and quickly adapted for delivery of stockings in accordance with the requirements of either the Dunn system or for pre-boarding.

(11) Stockings examined wrong side out as received from seaming and automatically turned on being removed from form.

(12) Inspection cycle halted for removal of reject by means of simple foot-operated switch.

(13) Form turned manually by operator for inspection and automatically returned to delivery position upon release of foot pedal.

Textile Machine Works, Knitting Machine Division, Reading, Pa.

More data? Write ◂ or use card, p. 181; list E-129

Electric Steaming Oven for Knitgoods

All types of knitwear can be set and boarded in the Novakust steaming oven which has its own steam generator, uses low-cost wire forms to provide economical interchangeability, is easy to install, and requires very little floor space.

Goods are steamed, dried in hot air, and cooled. The duration and temperature of each of these operations can be varied according to the requirements of the material being processed. Setting time for a batch varies from 2 to 5 minutes.

An interesting feature of the machine, which is chiefly used for outerwear, is the method by which steam is provided. At the exact moment the steam is required, a quantity of water sufficient to steam a given batch is atomized in the generator, immediately converted into steam, and conveyed to the goods under treatment. This vaporizing process is very similar in principle to a carburetor, except that use is made of an electrically heated cell which is maintained at a constant

SANDOZ

softeners at your fingertips...

The right one to meet your special needs

Sandoz is your source for softeners. We specialize in softening compounds for every purpose, and each is outstanding in its use. Whatever fibers you work with, whatever finishing problems you have, Sandoz is prepared to provide an answer. Get in touch with Sandoz — no further away than your telephone.

CHARLOTTE, N. C., 1510 Camden Road
FAIR LAWN, N. J., Fair Lawn Ave. & Third St.
LOS ANGELES, CALIF., 467 East Third Street
MONTREAL (Que.) CANADA, P. O. Box 364, Station "B"
CINCINNATI, OHIO, 3712 Beechmont Avenue
HUDSON, MASS., 312 Main Street
PHILADELPHIA, PA., 2215 E. Tioga Street
TORONTO (Ont.) CANADA, 179 King St. West

SANDOZ CHEMICAL WORKS, INC.
61 Van Dam St., New York 13, N. Y.

CERANINE FL ANIONIC
Provides a smooth, well-lubricated hand. Improves sewing qualities, minimizes friction, steps up production.

SANDOZIN W Paste NONIONIC
Compatible with all resin finishes. Gives an unusually soft and desirable hand, outstanding durability. Excellent draping qualities.

CERANINE HC CATIONIC
A versatile softener on all fibers... outstanding on knit goods. Produces a soft and pleasing hand that's durable, *plus* antistatic properties on synthetics.

ALL 3 SOFTENERS ARE SUITABLE FOR WHITE GOODS... NON-YELLOWING

SANDOZ

SANDOZ
THINKS AHEAD WITH TEXTILES

temperature by thermostatic control.

A particularly valuable feature of the steamer is its readiness for operation with automatic cut-off when work is interrupted for more than 5 minutes at a time.

Robert Reiner, Inc., 550-64 Gregory Ave., Weehawken, N. J.

More data? Write ◆ or use card, p. 181; list E-130

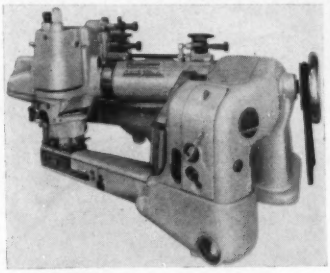
4000 Stitches per Minute with this Flatlock Machine

A completely new high speed "Flatlock" machine for use in the knit goods industry is capable of operating at speeds up to 4000 stitches per minute. An entirely new frame is employed in the new machine to incorporate automatic lubrication, eliminating about twenty points which required manual oiling in earlier models.

The machine is 40% faster, much easier to operate, and the seam produced not only enhances the general appearance of the garment but contributes immeasurably to the comfort of the wearer.

A new thread guide separator in the arm of the machine keeps the threads even as they are led from the various guides to the loopers. Threads cannot possibly become tangled.

There is a new adjustable looper holder arrangement which eliminates the simultaneous manipulation of both looper crank and looper lever pivots when making the lengthwise and sidewise adjustments in the relative positions of the loopers to the needles. This adjustment has been so simplified that it can now be accomplished by an operator.



The looper thread guard has been rearranged so that there is considerably more clearance under the arm of the machine, thus providing the operator with much more space in which to guide the work through the machine.

The cross thread mechanism has been redesigned so that the driving elements are in constant relation to the needle movement, regardless of the height to which the foot may be raised. This improves conditions when sewing over very light or very heavy materials.

Willcox & Gibbs Sewing Machine Co., 214 West 39th St., New York 18, N. Y.

More data? Write ◆ or use card, p. 181; list E-131

Make Rib Bottoms for F-F Sweaters on this Flat Knitter

The Dubied Type DRL automatic flat knitting machine, considered one of the most simple stitch transfer machines now on the market, is particularly well suited for the production of rib bottoms used in the manufacture of full-fashioned sweaters.

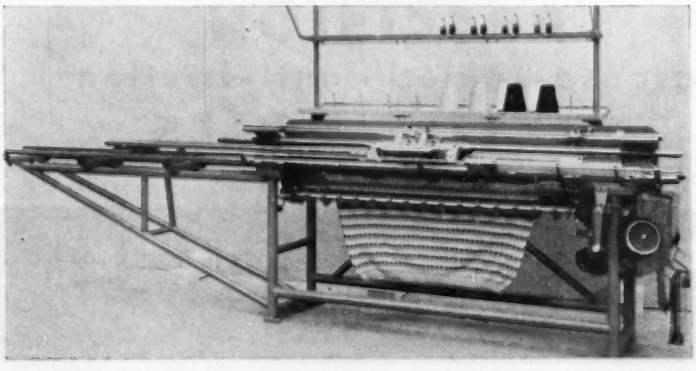
The automatic stitch transferring device is then used for reducing the number of needles during the last few rows of the rib, thus facilitating the topping operation.

Collars can also be produced on this machine, being knitted with a straight or scalloped edge, with eight-lock patterns or with lacy effects.

Built in a width of 60" with up to 14 needles per inch, the DRL is a double lock machine operating at 28 courses per minute.

Dubied Machinery Co., 11-30 45th Rd., Long Island City 1, N. Y.

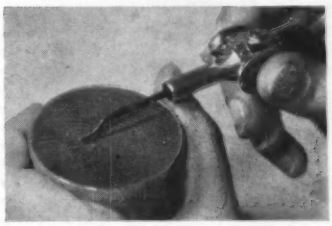
More data? Write ◆ or use card, p. 181; list E-132



Mends Pull Threads Quickly

Now available for existing hosiery repair machines is an attachment which mends pull threads by agitating them back into the stocking.

With a thread 1½ to 2 inches long,



about 15-20 seconds are required to make the repair, the movement of the repair foot being about 50 strokes per second.

Arno Lohmueller KG-Berlin Friedenau, Suedwestkorso 3, West Germany.

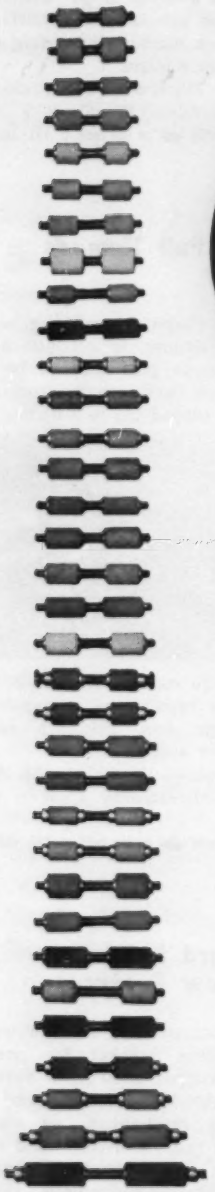
More data? Write ◆ or use card, p. 181; list E-133

Jacquard Knitter Has New Features

An improved yarn changer with a new holding bracket for positive settings, rugged control for versatile and trouble-free operation of the patterning mechanism, an electric clutch for quiet and controlled starts and stops and accurate jogging on set-ups, three convenient control panels that operate the machine from any position (start-stop-jog), and Bijur automatic oiling are features incorporated in the Model TA1 "Circular Jacquard" interlock and plain transfer (rib) knitting machines now being manufactured for sale to mills knitting fabrics for use in outerwear.

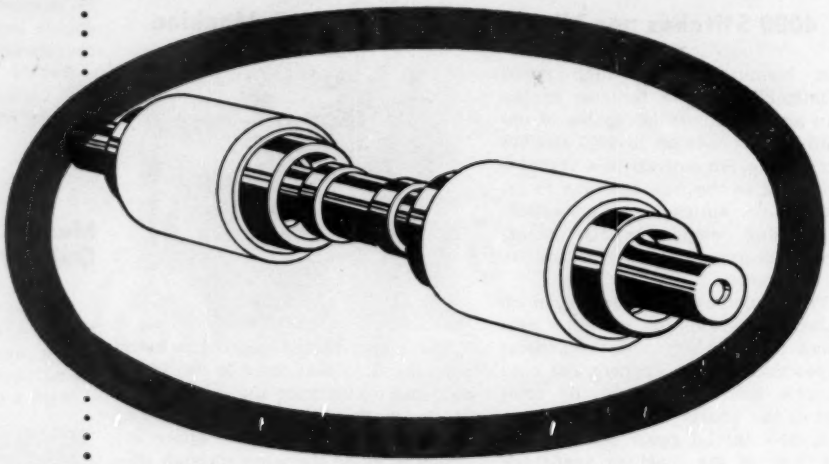
Available with 18", 20", 22", 24", and 30" diameter knitting cylinders

Produced in All Types and Sizes for Spinning and Roving



at last!

AN ANTI-FRICTION TOP ROLL THAT NEVER NEEDS CLEANING OR RE-LUBRICATING



Sold with an Unconditional 5-Year Warranty

This completely new design conquers forever the problems of roll lubrication. Grease is sealed in permanently. The bearings can't run dry. Grease can't get on the yarn. And what's more, lint can't get into the bearings.

Any PRECISION Roll that becomes inoperative from loss of lubricant, entry of lint, choking, any defects in material or workmanship or any cause whatsoever will be replaced with a new roll (less cots) at one sixtieth of the price for each month the discarded roll was in service.

The PRECISION Roll is never to be disassembled. Cots are applied and buffed, the same as with solid arbors and with equal accuracy.

Accelerated tests indicate that the life of a PRECISION Roll, without any cleaning, re-lubrication or servicing of any kind, is more than 15 years.

• ***Write for our complete catalog of***

PRECISION

grease-sealed • anti-friction

TEXTILE ROLLS

MANUFACTURED BY

COLE ENGINEERING CORPORATION

FOURTH AVENUE AT THIRTY-SECOND STREET

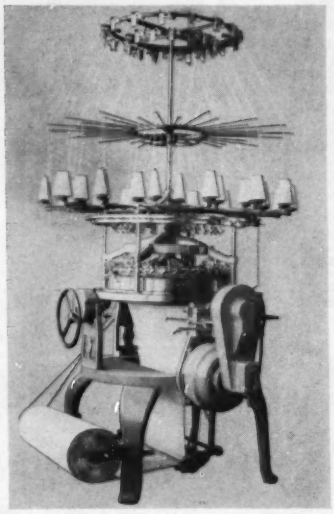
COLUMBUS, GEORGIA

and dials, 5 to 16 needles per inch, these fully automatic machines provide high production at low cost. A 30" diameter machine running at 12 rpm will produce 144 courses of plain knitted jersey fabric per minute.

Jacquard Knitting Machine Co., Inc., Philadelphia 24, Pa.

More data? Write ◂ or use card, p. 181; list E-134

30" Interlock Machine Knits 10 lb/hr



Because it has 32 feeds, this 30" 24-cut interlock stationary cylinder circular knitting machine is capable of producing up to 10 pounds of fabric per hour from a 40/1 C.P. cotton yarn, 32 stitches to the inch.

Other features include: two hand wheels—one in front and one in back of the machine—controlled by helical gears for instant disengaging and geared to permit easy turning of the machine by hand; cam ring and cap section of one piece with all cams attached.

Brinton Fabrics Machine Div. of Scott & Williams, Inc., Empire State Bldg., 350 Fifth Ave., New York 1, N. Y.

More data? Write ◂ or use card, p. 181; list E-135

Straight-Bar Looper for Sweaters

Recently made available for sweater knitting mills in the United States for joining collars, rib trims, and other sweater sections is a straight-bar type of looper which is built in Germany. Looping points are vertically emplaced on a point bar 34 inches wide.

Some of the advantages to be derived by using this machine, called the Kettma looper, are: (1) it is capable of handling an entire garment; (2) a wider piece of cloth can be accommodated on the points; (3) less operator fatigue results because of the ease with which it is operated.

The looper can be furnished in the same gauges as dial type machines. It makes either the single- or two-thread chain stitch.

Since the entire point bar is removable, it is possible to set up a continuous production line in the looping department. Extra bars can be purchased, and while one operator is actually looping the sweater, another can be running the loops onto the extra bars.

The machine is placed on an individual table and is individually power driven.

Robert Reiner, Inc., 550-64 Gregory Ave., Weehawken, N. J.

More data? Write ◂ or use card, p. 181; list E-138

No Storage Problem with this Preboarding Form for Women's Stretch Stockings

Constructed of high tensile strength aluminum alloy with mirror polished finish, the new Philadelphia preboarding forms for preboarding women's stretch stockings are available in three sizes—small, medium and large.

The boards are designed to be used in conjunction with Philadelphia's quick-change preboarding form bracket for Paramount preboarding equipment [described in TI for Nov., 1954, page 161].

The use of these lightweight, economical aluminum preboarding forms without an attached bracket minimizes storage problems.

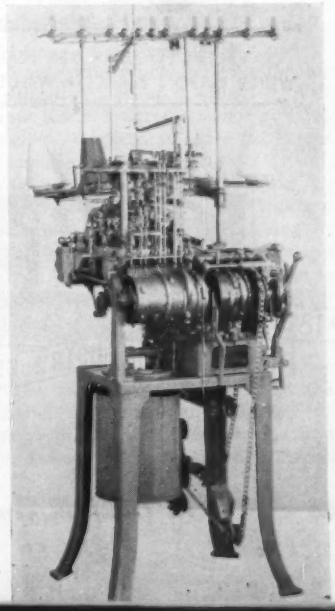
Philadelphia Metal Drying Form Co., Inc., 4550 Torresdale Ave., Philadelphia, Pa.

More data? Write ◂ or use card, p. 181; list E-136

For High Production of 70 Gauge Children's Hose

Shown here is the new high production, 2½", 160-needle, 70 gauge S&W Komet seamless hosiery knitting machine equipped with picot edge attachment.

It is fully automatic and will pro-



Combination Washer-Extractor Saves Time, Labor, Supplies

These features of the Unitwash combination washer-extractor make it especially adapted to washing knit goods.

(1) Washing speeds can be adjusted to suit all types of knit goods.

(2) Water temperatures can be regulated to suit the particular type of goods being washed.

(3) The machine is a completely automatic washer and extractor combination so that one loading is all that is necessary to do a complete job. Stretching and tearing are reduced to a minimum.

(4) Only half as much water is required, half the supplies, and a labor saving of 50%. The entire washing operation is 30% faster in over-all time involved.

(5) Women can be trained to operate even the 200-lb machine. Air brakes help to make it easy for anyone to operate.

(6) Built-in overflow prevents the flooding of floors.

Unit Wash Corp., Plainville, Conn.

More data? Write ◂ or use card, p. 181; list E-137

VERTEX FLAKES • 557 FLAKES
WHITE RIBBON FLAKES • WOOL FLAKES

● With a reputation for producing fine woolens since 1915, The Bell Company of Worcester, Massachusetts, is very particular about the quality of soaps used in their scouring facilities. Yes — Swift's Vertex Flakes, really treat woolens right. Made from the highest grade distilled red oil, Vertex Flakes quickly and gently remove oils and greases picked up in spinning or weaving operations. Because of their low titer (8-12°C), Vertex Flakes dissolve out troublesome contaminants quickly — even at low water temperatures. Swift's Vertex Flakes are highly recommended and widely used wherever fine dyeing calls for complete, yet gentle scouring.

The Bell Company is another of the many leading textile firms that specify Swift's soap for their scouring needs. They know that the name Swift in soap is backed by years of specialized experience and that Swift's soap products are readily available from 375 locations throughout the U. S. and Canada.

Yes, there is a Swift's Soap for your textile needs and a Swift's distributor near you . . . so, the next time you need soap — Call Swift for service and dependability.

ONE TRIAL IS BETTER THAN A THOUSAND CLAIMS

Swift
1855 CENTENNIAL 1955
TO SERVE INDUSTRY BETTER

SWIFT & COMPANY
Soap Department
U.S. Yards · Chicago 9, Illinois

duce infants' and children's anklets and half socks with or without picot edge, in 1 x 1 rib or other rib combinations and with plain or ribbed boot.

Scott & Williams, Inc., Empire State Building, 350 Fifth Ave., New York 1, N. Y.

More data? Write ◆ or use card, p. 181; list E-139

Machine Packages 2000 Pairs of Stockings Per Hour

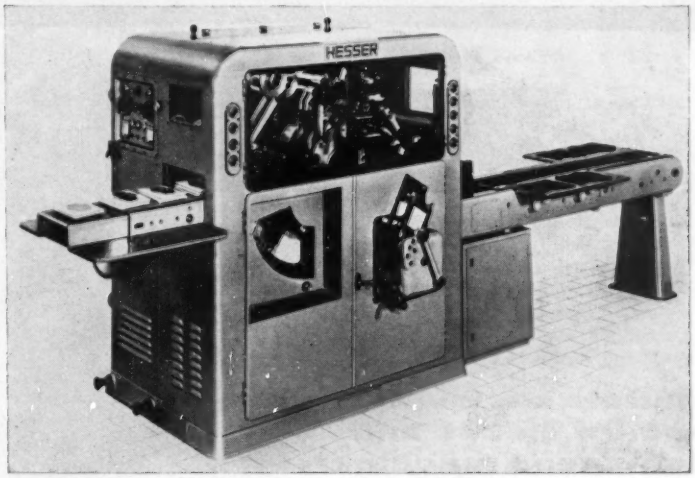
With three attendants (two persons on the feeding belt and one on the delivery) about 2000 pairs of ladies' stockings can be packaged per hour on the Hesser automatic packaging machine.

Pairs of prefolded stockings (except for the last fold) are placed on the feeding belt which runs continuously.

Printed cellulose film bags are fed from a magazine and a cardboard insert is fed from another stack. On a special inserting station the cardboard is first put in between the two folds of the stockings and then inserted together into the bags which are opened automatically. The protruding flap is then turned over and a strip of adhesive tape stuck on either side. Tape is fed from the reel.

The ready folded and closed bags containing the stockings leave the machine by threes on a conveyor belt.

If desired, labels indicating different colors and sizes can be put on the bags.



All driving parts of the machine are completely separate from the folding parts and enclosed so that stockings cannot be damaged.

Fr. Hesser Maschinenfabrik, Aktiengesekkschaft, Stuttgart - Bad Connstatt, West Germany.

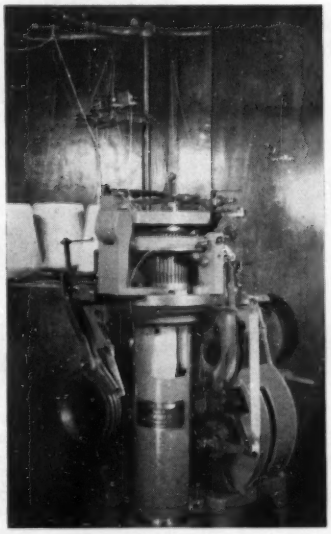
More data? Write ◆ or use card, p. 181; list E-140

Automatic Argyle Attachment for Spiral Hosiery Knitters

The Crawford AA attachment for spiral HH and PW circular hosiery knitting machines has many of the features of the Crawford Model AA argyle knitting machine (described in TI for July, 1954, p. 159). One of the advantages of this attachment is that it can be applied to a 3¾", 3½", or 3¼" spiral machine, making possible the economical and profitable production of a full range of sizes in men's and boys' argyle hosiery, as well as knee-length argyle socks for all age groups.

The attachment includes the complete yarn rack with a new and improved take-up bar, heel and toe reinforcing and run-off attachment, stop motion, and high speed attachment.

To eliminate the necessity of moving machines from the mill to the manufacturer's shop and back to the mill again for installation of the attachment, the manufacturer will train mill mechanics in his shop so that they, in turn, can make the modification in the customer's own plant.



The machines run at 200 rpm except when making the pattern changes. A 120-needle spiral machine equipped with the attachment produces 2.8 dozen pairs each eight-hour shift.

H. E. Crawford Co., Inc., P. O. Box 427, Kernersville, N. C.

More data? Write ◆ or use card, p. 181; list E-141

Modify S & W Machine to Make Extra Long Seamless Hose

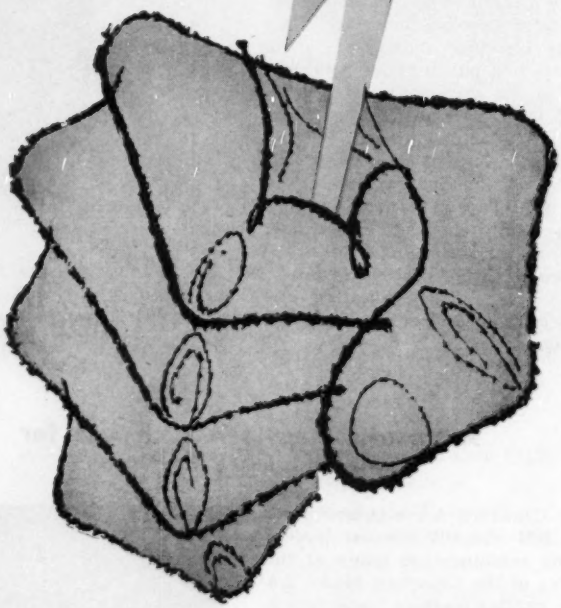
A new attachment is available for raising the head of the Scott & Williams KN seam-free hosiery knitting machine to accommodate a longer automatic tension device.

This new mechanism should be particularly attractive to knitting mills wishing to knit extra long or opera length stockings or those using a yarn with characteristics similar to Perlon which knits a stocking of longer length off the machine than does nylon.

The new device consists of two bolster plates—one 4" high and the other 6" high—that are mounted between the legs of the machine and the frame. Through the application

STOP STATIC PROBLEMS

with TWITCHELL 7421 OIL



controls static on modern blends and high-speed machinery!

Improve your quality and increase production yet hold down costs with this superior fiber lubricant.

You'll find that Twitchell 7421 Oil will control static build-up regardless of machinery or fibers used...yet this modern fiber lubricant is in the medium price range and possesses all other requisites of a modern fiber lubricant.

Since actual performance tells our story better than words, we urge you to try Twitchell 7421 in your plant...to see for yourself why it is the best value available.

excellent lubricity · high emulsion-stability · fluid emulsions

non-yellowing

rust inhibiting · easily scoured

If you would like a complete evaluation of Twitchell 7421 Oil as compared to eight leading medium priced wool and worsted oils, write to Dept. T5 for brochure titled, "TWITCHELL 7421 OIL."

Emery

Emery Industries, Inc., Carew Tower, Cincinnati 2, Ohio

Fatty Acids & Derivatives
Plastolein Plasticizers
Twitchell Oils, Emulsifiers

New York • Philadelphia • Lowell, Mass. • Chicago • San Francisco • Cleveland

Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

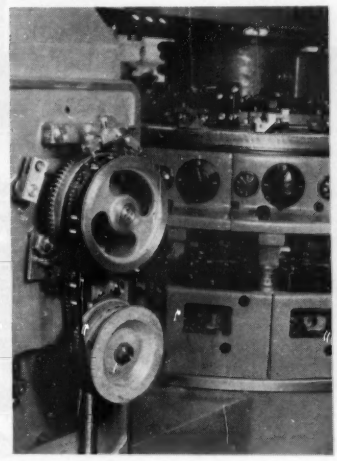
Export: 5035 RCA Bldg., New York 20, New York

of these bolsters singly or in any combination, the machines can be raised to different heights from 4 inches up to 12 inches.

Scott & Williams, Inc., Empire State Building, 350 Fifth Ave., New York 1, N. Y.

More data? Write or use card, p. 181; list E-142

Combine Large Patterns with Small Motifs on this 30" Circular Knitter



The patterning device of the Dubied Wevenit A24 fine gauge circular knitting machine has been redesigned to allow for an automatic change at will of the selection of the sinkers on the pattern wheels. With this Multivar device it is possible to combine large patterns with small motifs in such a way as to produce a garment including in its height several different pattern sections.

Thus, this machine, which is built in 30" diameter with 14, 16, and 18 needles per inch, can be used to full advantage in the manufacture of fabrics for sweaters and cardigans for children, women, and men.

Dubied Machinery Co., 11-30 45th Rd., Long Island City 1, N. Y.

More data? Write or use card, p. 181; list E-143

Equipment Briefs

To propel a hoist or other type carrier on monorail track or crane bridge, a **precision-built drive** is offered. Traction is obtained by spring-loaded contact of the rubber wheel against the bottom of any smooth flange track. Meets all requirements for constant service, exact delivery cycles, grade travel or movement of loads up to 5 tons with power consumption and maintenance held to minimum.

The American MonoRail Co., 13107 Athens Ave., Cleveland 7, Ohio.

More data? Write or use card, p. 181; list E-201

Fiberglas **industrial building insulation** provides thermal and acoustical insulation for roofs and walls as well as an attractive interior finish. It is designed for use with protected metal, cement asbestos board, aluminum or painted galvanized sheets for construction of such permanent buildings as warehouses, gymnasiums, manufacturing plants, etc. Faced on one side with Fiberglas mat, it is available in 24" widths, lengths to 96", and thicknesses of 1 - 2½".

Owens-Corning Fiberglas Corp., Toledo 1, Ohio.

More data? Write or use card, p. 181; list E-202

The Alnor Type 1460 **electric distant reading thermometer** is a compact panel instrument that brings a myriad of readings from widely scattered temperature zones to a central point—from as far as 1000 feet away. Accurately provides temperatures of fluids, process atmospheres, wet and dry bulb temperatures, etc. Line includes models from single position to more than 50 positions.

Illinois Testing Laboratories, Inc., 420 N. LaSalle, Chicago 10, Ill.

More data? Write or use card, p. 181; list E-203

A one-step silicone **water repellent for woolens, worsteds, blends of wool or worsted with either Dacron or acrylic fibers** is called "Cravenette" Super Silicone Water Repellent. Merely mix with water and apply. Maximum results are obtained, with complete drying, at 200 to 240 F in five or six minutes. Fabrics treated show high resistance to non-oily spots and stains, are given superlative hand, and woolens are actually upgraded, manufacturer states.

The Cravenette Co., 8th & Madison Sts., Hoboken, N. J.

More data? Write or use card, p. 181; list E-204

A practical **"skyhook" for hoists,** the "Magic-Pole Unipod," provides a sturdy support for hoists while lifting, shifting, or lowering equipment at almost any location, either indoors or out. Standard model supports 2000 lb, yet weighs only 22 lb. Closes to 6' 4½" for easy storage; extends by 6" steps to 10' 2". Any position is positively held by locking handle.

B. E. Wallace Products Co., Exton 20, Pa.

More data? Write or use card, p. 181; list E-205

An **electrified rotary card index file** called the Kard-Veyer contains movable shelves which travel from either direction, bringing the required tray to the reference area from either above or below, stopping at posting level by automatic leveling. Equipped with chair and posting board, it forms complete and compact work station at which operator can perform all normal filing and posting activities.

Remington Rand Inc., 315 Fourth Ave., New York 10, N. Y.

More data? Write or use card, p. 181; list E-206

Accident prevention banners 10' long by 3½' deep and printed in two brilliant colors point up practical safety slogans with attention-getting drawings. Come in two styles—one for indoor use and the other for outdoor display. One for each month of the year is available on an annual subscription basis.

National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

More data? Write or use card, p. 181; list E-207

A **double-faced pallet-type Colson Handler** is controlled by a single lever. By merely raising the control lever the pallets are lifted. Brakes apply instantly and automatically when operator lets go of control handle. 4000-lb capacity; speeds up to 4 mph.

The Colson Corp., Elyria, Ohio.

More data? Write or use card, p. 181; list E-208

An efficient, economical **hard water bypass for zeolite softeners** controls the proportionate mixing of untreated hard water and treated, fully-softened water to produce whatever degree of hardness is desired.

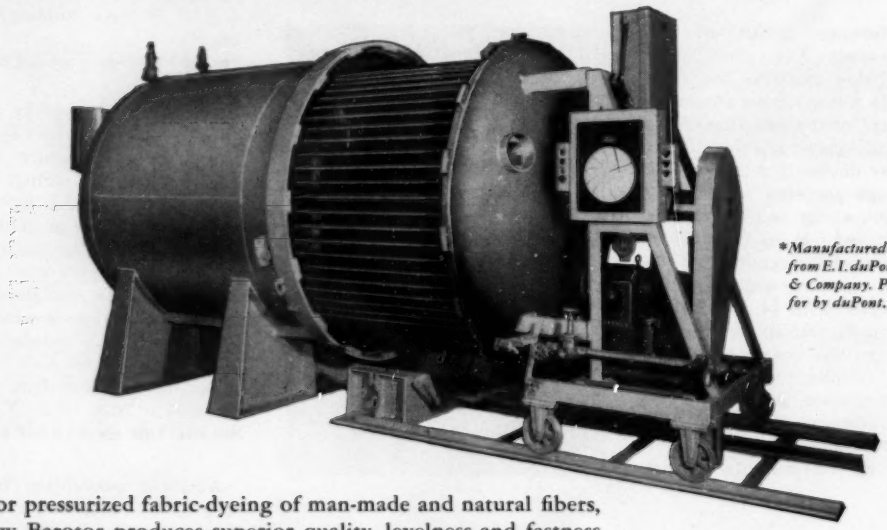
Graver Water Conditioning, 216 W. 14th St., New York, N. Y.

More data? Write or use card, p. 181; list E-209

"Neutralize" is a new product which may be safely used by anyone to **counteract both acid and alkali burns on personnel.** Just pour the solution into the eyes or over skin

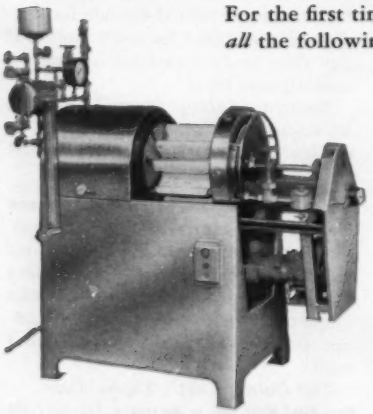
WIESNER-RAPP
BAROTOR*

. . . for Pressure-Dyeing Fabrics



*Manufactured under license from E. I. duPont deNemours & Company. Patent applied for by duPont.

Ideal for pressurized fabric-dyeing of man-made and natural fibers, this new Barotor produces superior quality, levelness and fastness in the full range of shades on a large-scale production basis.



LAB SIZE BAROTOR has all the basic features of the large production model Barotor. It is functionally designed for use in test dyeing to accurately predetermine large scale production results and also for laboratory use in dye and process development.

For the first time, this newly developed dyeing machine incorporates *all* the following 12 important features for superior dyeing:

- Fabrics open width at all times.
- Tensionless.
- All points in uniform and frequent bath contact.
- Rapid bath circulation and agitation.
- Operable with all woven fabric construction, both filament and spun.
- Widely adaptable for batch size.
- Have no need for attention during dyeing.
- Excellent duplication of conditions between laboratory and production scale.
- Fabric sampling and bath additions made without opening vessel and losing pressure, time or heat.
- Samples representative of the entire fabric.
- Cylindrical shape with maximum utilization of dyeing space.
- Investment commensurate with productivity in comparison with atmospheric dyeing.

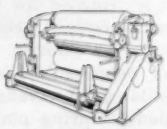
In addition, *the patented quick opening door,* an exclusive Wiesner-Rapp feature, greatly reduces the dyeing cycle time. Write today for complete information.

OTHER WIESNER-RAPP MACHINES

TIGHT-STRAND WASHER

MULTI-STAGE WASHER

DYE BECK



3-ROLL PADDER

THE WIESNER-RAPP CO., INC.
1614 SENECA ST., BUFFALO 10, N. Y.
Manufacturers of Textile Finishing Machinery

to render the chemical neutral and, therefore, harmless. Available in 4- and 32-oz polyethylene bottles.

E. D. Bullard Co., 275 Eighth St., San Francisco 3, Calif.

More data? Write ◆ or use card, p. 181; list E-210

"Seecloth" is a chemically treated fabric which when rubbed on glass or transparent plastic both **cleans and prevents fogging or misting** for a considerable period of time. Industrial uses include on safety goggles, glasses of operatives required to wear them, wind shields of vehicles, etc.

Hygiene Research, Inc., 684 Broadway, New York 12, N. Y.

More data? Write ◆ or use card, p. 181; list E-211

Designed for use in laboratories, pilot plants, and process industries where **controlled volume pumping of liquids** at micro flow rates is essential is the "Microflo" Pulsafeeder pump, a piston-diaphragm pump that will operate against pressures up to 1000 psig and has a maximum flow rate of 2400 ml per hour.

Lapp Insulator Co., Inc., Process Equipment Div., 7 Gilbert St., LeRoy, N. Y.

More data? Write ◆ or use card, p. 181; list E-212

Stainless steel pails fabricated by an improved welding method, which produces smooth surfaces inside and out, are said to equal seamless or spun types at lower cost. No solder is used.

Metalsmiths, 560 White St., Orange, N. J.

More data? Write ◆ or use card, p. 181; list E-213

New Books

The third revision of *Cotton Opening and Picking*, by Gilbert R. Merrill, is now available from the author who is a textile engineer residing at 364 Varnum Ave., Lowell, Mass. In addition to bringing this 102-page book, which is primarily designed to conserve the time of students in cotton manufacturing courses but is also a convenient reference for mill personnel, up to date by inclusion of information about the latest machinery developments for the cotton opening and picking processes, several changes have been made: (1) Use of a bookface type improves legibility; (2) text has been shifted from right hand page to left hand page to leave the open space for notes where it is more convenient for note making; (3) diagrams have been removed from the text and put on right hand page to permit more text to be available at same page with diagram without seriously reducing space for additional notes; (4) table of contents and list of illustrations are included as a convenient means of reference. Price, $2.50.

Chemistry and Chemical Technology of Cotton should be of particular value for cotton textile industry personnel who need a refresher in chemistry and for chemists who are anxious to learn about cotton textiles. Edited by Kyle Ward, Jr., of the Institute of Paper Chemistry, it is available from Interscience Publishers, Inc., 250 Fifth Ave., New York 1, N. Y. (price, $20.00). Contents: Chemistry of lint cotton; sizing; bleaching; dyeing; printing of cotton fabrics; mercerization; water-resistance, fire-resistance, mildew and rot resistance treatments; use of resins for creaseproofing, shrinkproofing, glazing, and embossing cotton fabrics; treatment of cotton for rubber industry; testing and evaluation of cotton textiles; laundering of cotton fabrics; chemical changes in cotton fabrics during processing and use; glossary; author and subject indexes.

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Easily installed on virtually any finishing room machine . . . a separate operator is not required.
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SPEED—Applies transfers to either one or two selvage edges up to 45 yards per minute.
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SIMPLICITY—Operates automatically with virtually any standard finishing room machine.
ECONOMY—No separate operator required. Inexpensive to buy, install and maintain.
Kaumagraph COMPANY
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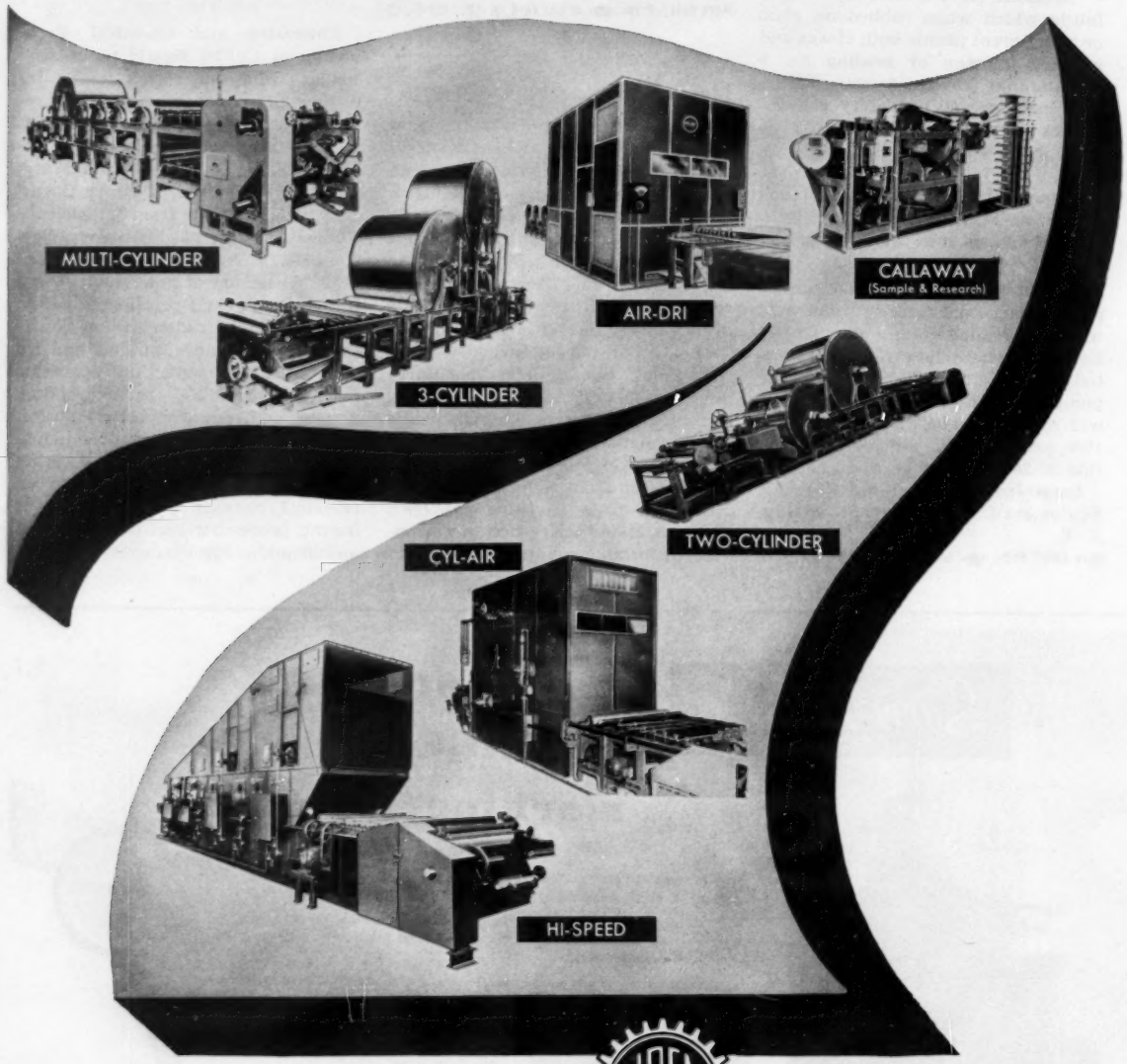

SLASHERS

Only West Point can make an impartial recommendation, because only West Point makes both cylinder and hot air slashers. Whether for the lightest gauze or the heaviest sheeting . . . for natural or synthetic fibers . . . for samples or research . . . West Point can furnish the right slasher.

WEST POINT FOUNDRY & MACHINE COMPANY
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★ ★ ★ ★ ★ ★ ★ ★ ★ ★

5-1 Poly-V-Drives. Catalog illustrates and describes the new revolutionary Browning Poly-V-Drive. Contains specifications of stock sheaves and belts, complete engineering data for design of drives, along with tables of practical stock drive combinations already worked out for convenient selection. Write Browning Manufacturing Co., Maysville, Ky.

5-2 Industrial Products. Three catalogs covering casters and wheels which Colson manufactures for the industrial market, industrial trucks and trailers and powered lifters, lift tables and lift trucks. Write Colson Corporation, Elyria, Ohio.

5-3 "How to Modernize Old Windows with PC Glass Blocks." Booklet demonstrates with photographs and drawings the specific benefit of a window modernization program to the building owner in terms of lower maintenance and operating costs. Write Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh, Pa.

5-4 Dynamic Response D-C Motors. Illustrated bulletin describes the new Reliance Super "T" Line D-c, Motors with Dynamic Response. Information is included on speed ranges, acceleration rates, enclosures, dimensions and selection data. Write Reliance Electric & Engineering Co., 1088 Ivanhoe Road, Cleveland 10, Ohio.

5-5 Lighting Fixtures. Booklet describes the features of Corro-Tex finish fixtures for Dyehouse, Card Room, Slasher, Room Spinning Room, Weave Room and Finishing. Write Southeast Lighting, Inc., P. O. Box 1024, Charlotte 1, N. C.

5-6 Pneumacard. Booklet describes this Pneumafil system for wool cards giving features and how it operates complete with illustrations. Write Pneumafil Corporation, 2516 Wilkinson Blvd., Charlotte 8, N. C.

5-7 Mounting Machinery. Bulletin shows how mounting machinery pays off in higher production output and lower production costs. Gives benefits of mounting with a summary of the types of Barrymounts which have been engineered for applications on various machines. Write Barry Controls, Inc., 1000 Pleasant St., Watertown, Mass.

5-8 Lubrication Chart. Wall chart contains lubrication recommendations for many industrial needs. Chart covers applications such as hydraulic systems, spindles, air compressors, reduction gears, electric motors, oven conveyors and other general uses. Write Lincoln Engineering Co., 5701 Natural Bridge Ave., St. Louis, Mo.

5-9 Hydraulic Standards. Illustrated pamphlet presents the "Standards" in complete, unabridged form including the recommended practices on hydraulic packings and seals, examples of packing code identification, sample circuit using J. I. C. symbols, glossary of terms and other useful information. Write Miller Fluid Power Company, 2040 N. Hawthorne Ave., Melrose Park, Illinois.

5-10 Slurry Storage Systems. Booklet describes fully the soda ash slurry storage systems giving features and advantages complete with installation pictures. Write Diamond Alkali Company, 300 Union Commerce Bldg., Cleveland 14, Ohio.

5-11 High Speed, Automatic Quiller. Color booklet by Schlafhorst describes the "Autocopser" Automatic Quiller. Gives advantages, space requirements, etc. Write Terrell Machine Co., Inc., Charlotte, N. C.

5-12 Stopping Device for Roving. Pamphlet in color gives complete details on "Adamstop" device for detecting drafting roll lay-up or sliver break. Write Adams, Inc., 4 East Lewis Plaza, Greenville, S. C.

5-13 Pneumatic Hosiery Inspection Machine. Circular by Southern Textile Machine Company gives complete rundown on the SOTCO Pneumatic Inspection Machine. Write Southern Textile Machinery Co., Paducah, Ky.

5-14 Grease-Sealed, Anti-Friction Rolls. Booklet contains description and engineering drawings of the Cole grease-sealed, anti-friction rolls. Also contains information on dual apron controlled drafting units. Write Cole Engineering Corp., P. O. Box 153, Columbus, Ga.

5-15 Price List for Whitinsville Rings. Prices of all Whitinsville spinning and twister rings are included in new price list effective March 1, 1955. Write Whitinsville Spinning Ring Co., Whitinsville, Massachusetts.

5-16 Reduce Color Mixing Costs. Informative booklet available on the Gabb "Shear-flow" mixer which cuts mixing time, makes for better uniformity, less spillage, quicker cleaning and lower maintenance costs. Write Gabb Special Products, Windsor Locks, Conn.

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11. **"WHERE DID THEY HIT PAY DIRT?"**—Booklet describes how many manufacturing concerns have come South and why they found it profitable. Gives industrial advantages of the Southeast. — CENTRAL OF GEORGIA RAILWAY, Industrial Development Department, 501 Rhodes Haverty Bldg., Atlanta 3, Georgia.

17. **A FAIR DAY'S PAY AND IN RETURN A FAIR DAY'S WORK**—8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management.—AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

19. **INDUSTRIAL BUILDING**—A 32-page booklet entitled "U.S.S. 12, U.S.S. 17 Stainless Steel Walls and Roofs for Industrial Buildings," is now Available for distribution. This publication illustrates the use of type 410 and type 430 Stainless Steel Sheets in the construction of industrial and semi-industrial buildings.—U. S. STEEL CO., 525 William Penn Pl., Pittsburgh 30, Pa.

22. **THE WONALANCET WAY** — Is the title of an editorial booklet published five times a year and deals with current problems which appear worthwhile at the time they are written. — WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

180. **MOTION CONTROL WITH SILENTBLOC**—Brochure describes advantages of General Tire Company's Silentbloc method of protecting delicate instruments, reducing machine vibration, etc.—THE GENERAL TIRE CO., Industrial Products Div., Akron, Ohio.

PLANT & PLANT MAINTENANCE . . .

102. **"TANK TALK"**—Sixteen-page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. **HUMIDIFICATION, EVAPORATIVE COOLING**—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

105. **CASTERS AND WHEELS**—Catalog gives complete descriptions on full line of industrial casters and wheels. Features patented "LOCKWELD" Steel Casters Without A Kingpin" both Single and Double Ball Race.—THE FAIRBANKS CO., 393 Lafayette St., New York 3, N. Y.

106. **FINNELL COMBINATION SCRUBBER-VAC**—Illustrated literature gives complete specifications and describes various methods of combination-machine-scrubbing, including method recommended for cleaning oily floors.—FINNELL SYSTEMS, INC., 1300 East St., Elkhart, Indiana.

108. **MAPLE FLOORING**—Booklet describing finishing of Northern Hard Maple Flooring—list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

111. **CERTIFIED CLIMATE AIRCHANGER SYSTEM**—Bulletin describes Certified Climate Airchanger System as used with direct humidification for partial or complete air conditioning.—PARKS-CRAMER CO., Fitchburg, Mass.

112. **HARDWOOD FLOORING** — Booklet entitled "Specialist in Manufacturing of Hard Maple Flooring for textile plants."—CONNOR LUMBER & LAND COMPANY, P. O. Box 810, Wausau, Wisconsin.

114. **PENETRATING WOOD FINISH** — Bulletin gives applications, uses and application specifications of floor seals for textiles.—E. I. du PONT de NEMOURS & CO., INC., Finishes Division, Wilmington, Delaware.

115. **FOAMGLAS**—Illustrated brochure features information on how the use of Foamglas cellular glass insulation solved the severe insulating problems of leading users—PITTSBURGH CORNING CORP., One Gateway Center, Pittsburgh 22, Pa.

116. **STOP CORROSION**—Details on speed Rez paint for metal wood and concrete maintenance solving condensation problems.—TRUSCON LABORATORIES, Box 69, Milwaukee Junction, P. O. Dept. T, Detroit 11, Mich.

117. **CLEANING SYSTEMS** — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system.—PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

118. **UNBRAKO STANDARDS** — Catalogue by Standard Pressed Steel Co. describes in pictures and text the company's line of Unbrako precision threaded fasteners. Several applications of each product are indicated in line drawings to suggest hundreds of others and to stimulate the imagination of design engineers.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

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127. **SOLENOID VALVES** — Bulletin "V" lists sizes from 1/2 inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three-way solenoid valves, etc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

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135. **COLOR CONDITIONING**—Booklet illustrated in color describes how Du Pont color conditioning puts color to work for you. Many ideas on safety brought out which color can aid.—E. I. du PONT de NEMOURS & CO., INC., Finishes Div., Wilmington 98, Delaware.

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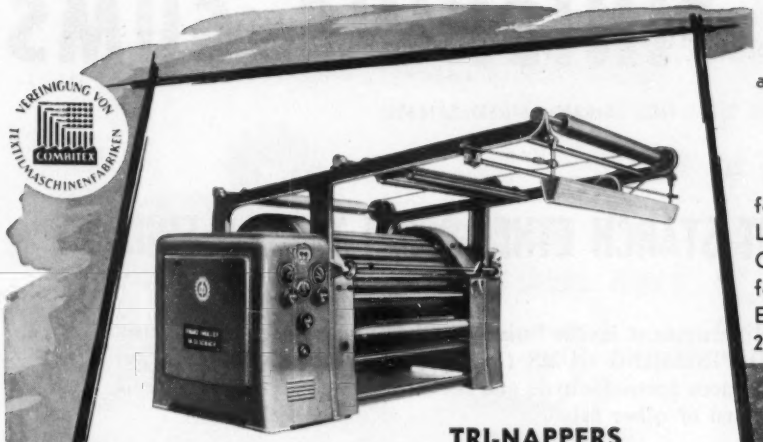

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227. WOOLEN AND WORSTED MILL ELECTRICAL EQUIPMENT—Booklet by Westinghouse follows processes through the mill and shows application and advantages of Westinghouse equipment.—WESTINGHOUSE ELECTRIC CORP., Box 2099, Pittsburgh 30, Pennsylvania.

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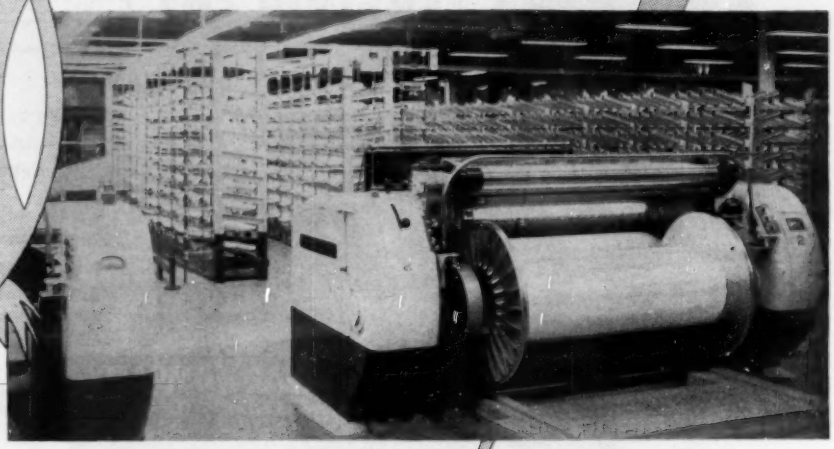

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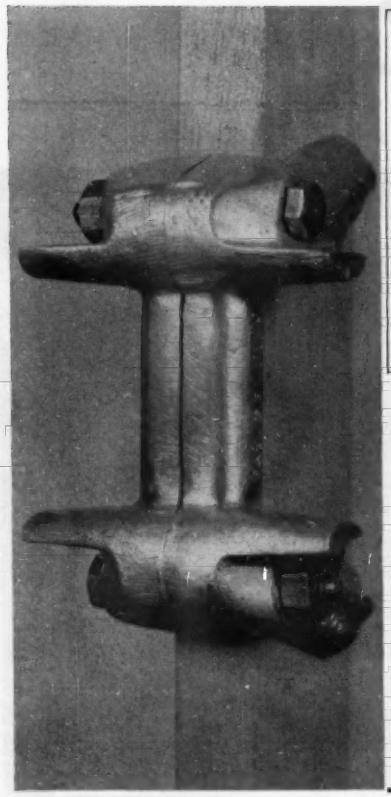

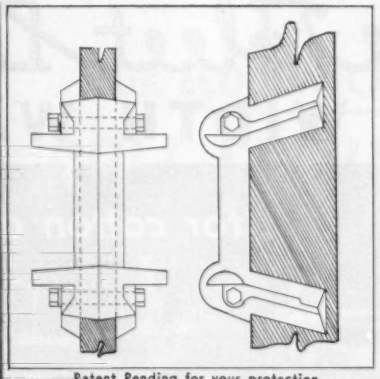

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475. TEXTILE ROLL COVERINGS AND MILL SUPPLIES—Color booklet by Armstrong shows and describes their complete line of textile roll coverings, including also loom supplies, mill supplies, Roll covering for cotton, silk and synthetic and woolen and worsted systems. An excellent guide book.—ARMSTRONG CORK CO., Industrial Div., Lancaster, Pa.

476. TEXTILE FIBER OPENER FOR COTTON, SYNTHETICS, WOOL—New brochure by Cen-Tennial Cotton Gin Co. gives complete data on the Cen-Tennial Opener which incorporates improvements on the original SRRL Opener. Complete operating procedure is described.—CEN-TENNIAL COTTON GIN CO., Columbus, Ga.

478. TIPS ON CARDING PROCEDURE—Monthly bulletin by Ashworth Brothers includes many useful tips and advice on carding operation, maintenance and care and is available to anyone interested. Bulletin is a reprint of section appearing on green paper in this issue.—ASHWORTH BROTHERS, Fall River, Mass.

WEAVING, SLASHING . . .

501. LOOMS—An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms." Information on all types fully discussed.—CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502. COUNTING AND MEASURING DEVICES—Condensed textile catalog illustrating and describing pick counters, hank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery.—VEEDER-ROOT, INC., Hartford, Conn.

503. WEAVER'S KNOTTER—A catalog on the Boyce Weaver's Knotter giving a few instructions as to its use, recommendation as to the proper type knotter for the various types of yarns, and the spare parts that go to make up the knotter.—A. B. CARTER, INC., Gastonia, N. C.

504. LOOM SUPPLIES — Literature describing complete line of straps, strapping, pickers, dobby cords, sticks, binders, bumpers, brake lining and allied products.—E. H. JACOBS NORTHERN DIV., THE EULLARD CLARK CO., Danielson, Conn.

505. INNOVATION IN TEXTILE DRYING—Booklet by J. O. Ross gives details on Steam or Gas "Hot Air" Slasher for high speeds at low cost.—J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

621. "DYEING SYNTHETIC FIBERS"—Brochure giving a comprehensive, detailed analysis of the methods and materials available for dyeing synthetic fibers.—GENERAL DYESTUFF CO., 435 Hudson St., New York 14, N. Y.

506. SLASHING HINTS—A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing selvages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc.—SEYDEL-WOOLLEY & CO., 748 Rice St., N. W., Atlanta, Ga.

507. VARIABLE SPEED SLASHER DRIVE—Reeves bulletin G-503 describes their Servo-Control slasher drive which automatically controls tension from creel to beam, and which controls the stretch in the slasher.—REEVES PULLEY CO., Columbus, Ind.

508. LOOM PRODUCTION CHARTS—Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds.—RALPH E. LOPER CO., Greenville, S. C.

509. MULTI-MOTOR SLASHER DRIVES—Booklet designed to bring the descriptive information on multi-motor slasher drives up to date, and emphasize the improvement in the drive through the use of Rototrol for the control of winding tension.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

511. ALUMINUM BEAMS—Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types.—HAYES INDUSTRIES, INC., Jackson, Mich.

514. THE STORY OF STARCHES — Semi-technical booklet tells the story of starches and information on how they are produced, the creation of new specialty starches, the unique "man-made" staroh derivatives, and the handling of starches.—NATIONAL STARCH PRODUCTS, INC., 270 Madison Avenue, New York 16, New York.

515. WARPING, SLASHING, WEAVING ARNEL YARNS—8-page booklet preliminary information on Arnel Triacetate Yarns.—CELANESE CORP. OF AMERICA, Textile Division, Box 1414, Charlotte, N. C.

517. LOADING SYSTEM—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices.—THE FOXBORO COMPANY, Foxboro, Mass.

521. STEEL WARP BEAMS—20-page Catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties.—MILTON MACHINE WORKS, INC., Milton, Pa.

530. ROTARY UNIONS—New catalog shows how to cut costs, get better sealing on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count."—PERFECTING SERVICE COMPANY, Atando Ave., Charlotte, N. C.

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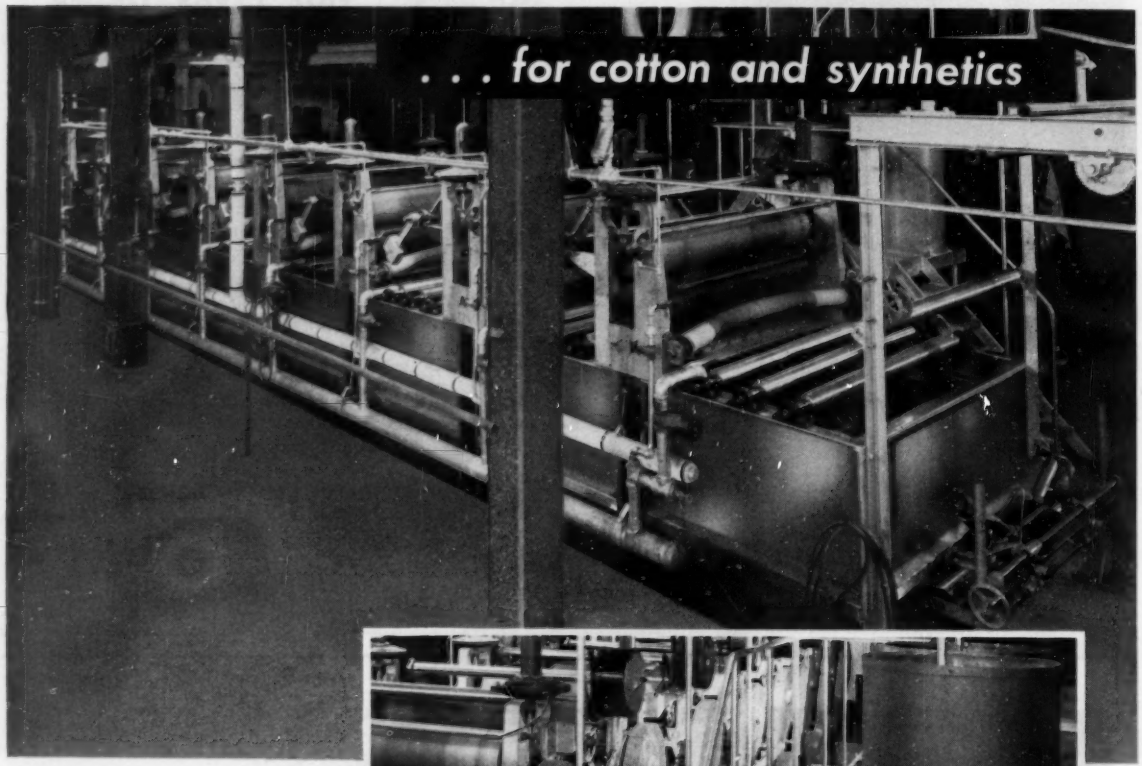
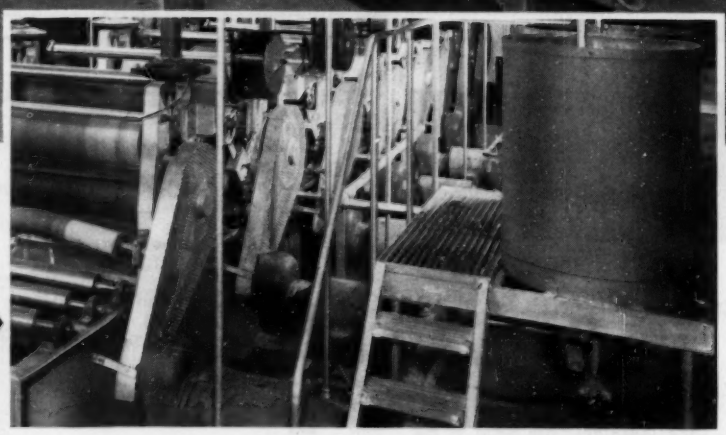


Installation of an Open Width Washer at Greenwich Printing and Dyeing Company, Inc., East Greenwich, Rhode Island.



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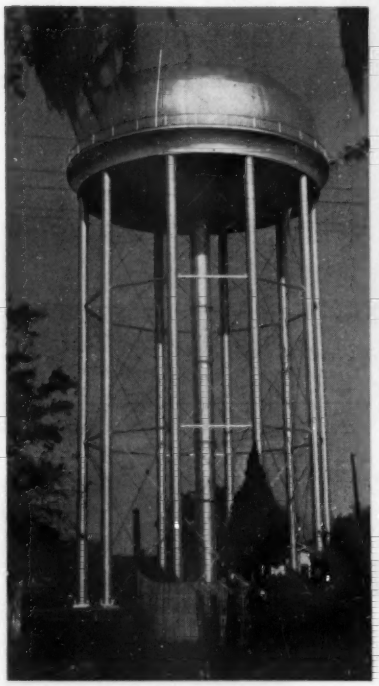

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536. HOMOGENIZER IMPROVES SLASHING—Pamphlet by Manton-Gaulin Manufacturing Company shows how mechanical conversion of size by the Gaulin method produces better size. Gives installation pictures and specifications.—MANTON-GAULIN MANUFACTURING COMPANY, INC., Everett, Mass.

537. WEST POINT'S HOT AIR SLASHER—Bulletin describes advantages and capacities of new hot air slasher by West Point Foundry and Machine Works. Detailed specification included.—WEST POINT FOUNDRY AND MACHINE WORKS, West Point, Ga.

538. AIR SLASHER DRYER—Pamphlet by Proctor & Schwartz shows construction and operating details of the Proctor Air Slasher Dryer. Advantages listed and cut-away view shown.—PROCTOR & SCHWARTZ, INC., 7th St. and Tabor Rd., Philadelphia 20, Pa.

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540. SLASHING EQUIPMENT—Brochure by Tower Iron Works shows different types of slashing equipment, enumerating characteristics and advantages of each.—TOWER IRON WORKS, 50 Borden St., Providence 3, R. I.

545. NOPCO CHEMICAL DATA SHEETS — Now available are Nopcostats, Nopco Sizes N and D, Important points in Warp Sizing, Interpretation of Analysis, Wetting Agents, Balanced wool and worsted oils, Acetate Warp Sizing, Viscose warp sizing, Rayon soaking.—NOPCO CHEMICAL CO., Harrison, N. J.

DYEING, FINISHING CLOTH ROOM . . .

601. CONTINUOUS PEROXIDE BLEACHING RANGES—Booklet gives illustrations and describes uses and gives specification of Ranges.—RODNEY HUNT MACHINE CO., 49 Mill St., Orange, Mass.

602. CONTROLLED VAT DYEING — Calco technical booklet No. 828 discusses Stabilization of Vat Dyes at Elevated Temperatures, Instrumental and Analytical measurements, Lenco Potentials.—AMERICAN CYANAMID CO., Calco Chemical Division, Bound Brook, New Jersey.

606. HYDRAULIC POWER UNITS—Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

608. WASHERS FOR SCOURING, BLEACHING, ACIDIFYING — Well-illustrated booklet shows how Sargent's modern, high-capacity, continuous process washers can help maintain quality and decrease costs. Contains operation diagram and good commentary on construction.—C. G. SARGENT'S SONS CORPORATION, Graniteville, Mass.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY—Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Pre-Boarding and Automatic Boarding Machines for hosiery.—PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

614. TEXTILE FINISHING MACHINERY — Further information concerning the Wiesner-Rapp textile finishing machinery as connected with the textile and chemical industries. Helpful in discussing processing problems.—THE WIESNER-RAPP CO., INC., 1603 Seneca St., Buffalo 10, N. Y.

615. HIGH PRODUCTION EXTRACTOR FOR RAW STOCK—YARN—HOSIERY — Descriptive bulletin and full information on automatic Twintainer Extractor with bottom-unloading removable baskets. Machine replaces three conventional extractors, lowers labor costs.—FLETCHER WORKS, INC., Philadelphia, Pa.

616. FINISHING DRIVES—32-page booklet covers complete drives Westinghouse has engineered for the textile finishing industry. Describes all types of finishing ranges and discusses advantages of Westinghouse drives for these installations. "Packaged" drives for batch processes covered.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING—Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation. — TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

619. PENFORD FINISHING GUMS—Booklet by Penick & Ford gives complete data, including physical properties and results which may be expected on Penford gums.—PENICK & FORD, LTD., 420 Lexington Ave., New York 17, N. Y.

620. REGENERATION OF ZEOLITE WATER SOFTENERS—Booklet explains adpantages of International's Lixate Process in regeneration of zeolite water softeners. Shows how it cuts costs and does a better job.—INTERNATIONAL SALT COMPANY, INC., Scranton, Pa.

623. SELVAGE GUIDER—The Marshall and Williams positive overfeed and selvage guider is described in a brochure as being developed to meet the most modern requirements of the textile finishing industry. Full description, pictures and advantages discussed.—MARSHALL AND WILLIAMS CORPORATION, 46 Baker Street, Providence 5, R. I.

627. SINGLE APRON STOCK DRYERS—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

628. TREATMENT OF SYNTHETIC TEXTILE FINISHES—High speed drying and curing of synthetic finishes by means of far-infrared radiation is covered in a new 22-page folder entitled "The Textile Report."—EDWIN L. WIEGAND COMPANY, 7700 Thomas Blvd., Pittsburgh 8, Pa.

630. COMPLETE NAPTHOL MANUAL—Practical working handbook, 110 pages, on textile dyeing and printing applications of Napthols.—PFISTER CHEMICAL WORKS, Box 326, Ridgefield, N. J.

631. ELIMINATE DYE-BATH SHOCK — Data sheet by Foxboro shows how woven fabrics and hosiery may be protected from Crow's-feet, uneven shade, creasing caused by too rapid cooling of goods.—FOXBORO COMPANY, 487 Neponset Ave., Foxboro, Mass.

632. LUG STRAP WASHERS—Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—E. H. JACOBS NORTHERN DIV., Danielson Conn.

637. BALL BEARING TURN TABLE—Leaflet describing this 48" diameter steel turn table for use in mills where the cloth is delivered in rope form to trucks and the trucks are placed in position ahead of a Scutcher or cloth opening machine. Advantages discussed.—BIRCH BROTHERS, INC., 32 Kent St., Somerville, Mass.

639. ROTARY DYEING MACHINE—Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc.—SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

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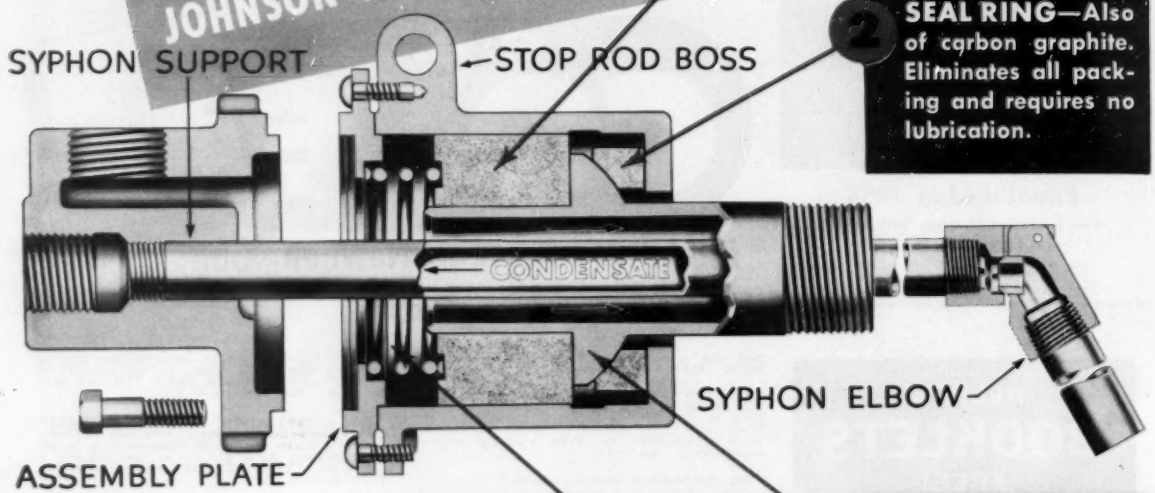

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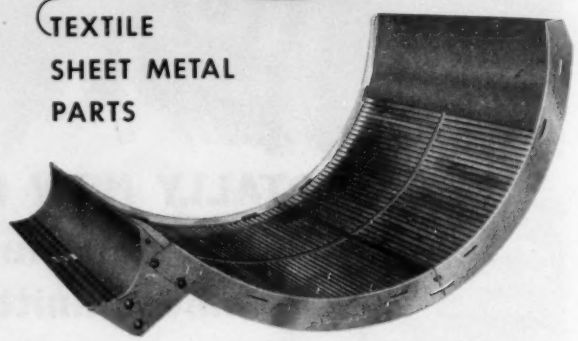

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655. PAPER TUBES FOR YARN AND CLOTH—Complete data to help you solve your paper tube problems. Overnight delivery of yarn and cloth paper tubes and boards. Shows how warehousing of these items can be avoided.—TEXTILE PAPER PRODUCTS, Cedartown, Ga.

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714. NEW SODA ASH BULLETIN—64-page edition contains both new material and revisions of previously used data covering the subject.—SOLVAY SALES DIV., 40 Rector St., New York 6, N. Y.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing.—ARKANSAS CO., INC., Newark, N. J.

719. WOOL OIL—Descriptive booklet on anti-static fiber lubricant, Twitchell 7421. Performance factors given particular emphasis are static control, scourability, lubricity and resistance to yellowing.—EMERY INDUSTRIES, INC., Dept. 5, Carew Tower, Cincinnati 2, Ohio.

720. INDUSTRIAL OIL—Bulletin catalogs all of Swift's Industrial Oil and Fatty Acid products. Included are detailed specifications, shipping information and suggested usage on products of animal, vegetable and marine sources.—SWIFT & COMPANY, Industrial Oil Department, 1800 165th Street, Hammond, Indiana.

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723. CHEMICAL CATALOG—Features detergents, wetting agents, emulsifiers, brighteners, sequestrants, dyeing assistants with chemical composition, properties and application.—ANTARA CHEMICALS DIV., GENERAL ANILINE & FILM CORP., 435 Hudson St., New York 14, N. Y.

727. COLOR PRINCIPLES—Booklet available from Sandoz Chemical describes the fundamental principles of color and its measurement. Booklet has been adopted by several of the leading textile schools.—SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y.

729. STATIC AND STATIC CONTROL — Papers deal with historical background of static electricity and the problems caused by it along with methods of controlling them.—DEXTER CHEMICAL CORP., 819 Edgewater Road, New York 59, N. Y.

733. WOOL OILS—Twin booklets by Proctor and Gamble tell of the influence of wool oils in producing quality yarns and fabrics, and of Proctor and Gamble's Proxol T, an outstanding wool oil.—PROCTOR AND GAMBLE DIST. CO., Cincinnati, Ohio.

734. BLEACHING WITH PEROXYGEN CHEMICALS—Bleaching methods for cotton, rayon, nylon and animal fibers are comprehensively treated in Becco Research and Development Dept., Bulletin No. 52, now available.—BUFFALO ELECTRO-CHEMICAL CO., INC., Station B, Buffalo 7, New York.

745. RAPIDASE FOR DESIZING—Bulletin explaining in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

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768. DU PONT PEROXIDE BLEACHING SYSTEMS—New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

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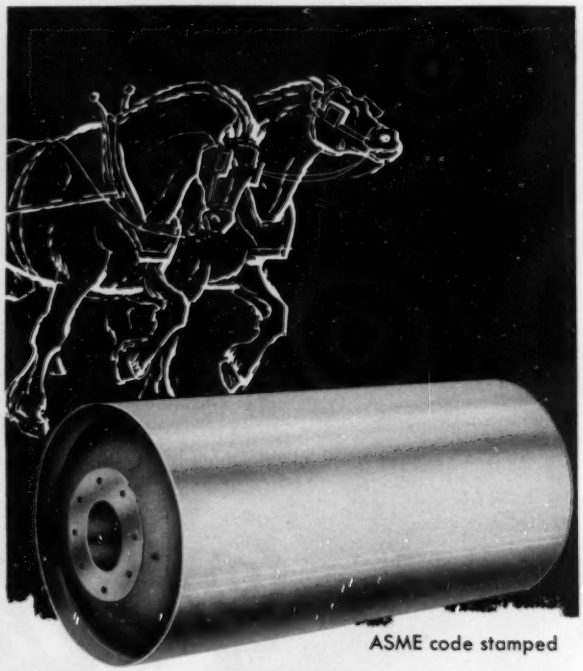

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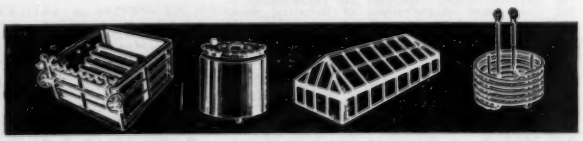

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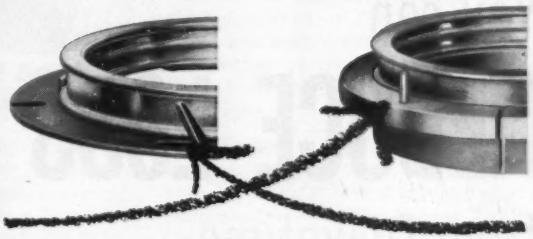

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769. SURFACE TENSION DEPRESSANT — The booklet, "Mercerizing and Alkamerce—The Ideal Dry which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.—HART PRODUCTS CORP., 1440 Broadway, New York, N. Y.

774. ROYCE TEXTILE CHEMICALS—This booklet briefly describes the leading Royce products for textile processing printing, dyeing and finishing.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING . . .

800. SYNTHANE TEXTILE PARTS—Folder on laminated bobbins, pirns, headless package tubes, hosiery turning and examining forms, sizing bobbins, etc.—SYNTHANE CORP., 9 River Road, Oaks, Pa.

801. THE WILDMAN SINGLEHEAD FULL-FASHIONED HOSIERY MACHINE — Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

808. REINER WARPER—Full width and sectional warpers for all requirements in the knitting and weaving industry fully described in recent catalog.—ROBERT REINER, INC., Weehawken, N. J.

818. FORGED HEAD ALUMINUM BEAMS—Bulletin 49-A shows new beam capable of holding high yardage of nylon and rubber warps, with specifications. Also describes permanent mold aluminum tricot and section beams.—MILTON MACHINE WORKS, INC., Milton, Pa.

823. VARIABLE STRIPER—Booklet available describing Supreme's complete line of Automatic Variable Stripers and Pattern Placer Machines.—SUPREME KNITTING MACHINE CO., INC., 105 Johnson Ave., Brooklyn 6, N. Y.

828. THE KIDDE KNITTER—Bulletin describing this newest in Raschel-type warp knitting machine and higher production attained with it.—KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES . . .

924. BUTT-TACKING SEWING MACHINE—Booklet describes an operating installation of the Merrow single thread butt-tacking sewing machine. Gives performance data, and advantages of butt-tacking.—THE MERROW MACHINE COMPANY, 28 Laurel Street, Hartford, Conn.

925. SEWING MACHINES—The Lock-Stitch bulletin No. 258 describes and illustrates new, high speed, single needle Union Special Lock-Stitch machine for general purpose industrial sewing operations.—UNION SPECIAL MACHINE CO., 407 N. Franklin St., Chicago 10, Illinois.

MATERIALS HANDLING . . .

1003. CASTERS AND WHEELS—192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this.—DARNELL CORP., LTD., Long Beach 4, Calif.

1006. LANE CANVAS BASKETS—16-page illustrated booklet describing the Lane line of canvas baskets for textile use.—W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1007. OVERHEAD HANDLING EQUIPMENT — 56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem.—THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

1008. CASTERS AND WHEELS—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. CONVEYOR KEY BOOK—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1011. TEXTILE TRUCKS—Booklet describing doff boxes, frames and trucks, yarn, waste, platforms, conditioning, steep lap, fiber, utility trucks, etc. Uses and description.—EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

1017. "HOW TO OPERATE A LIFT TRUCK"—Booklet gives information about the operation of a lift truck, preventive maintenance, safety and basic materials handling.—HYSTER COMPANY, Portland 8, Oregon.

1030. CDF RECEPTACLES—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

MISCELLANEOUS . . .

1102. BALING PRESSES—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. UNBRAKO SCREWS — Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1111. BRUSHES—A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. THE RANDOM WEB PROCESS — Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams.—CURLATOR CORPORATION, Textile Division, 565 Blossom Rd., Rochester, N. Y.

1113. MACHINE KNIVES — Catalog and price sheets describing this company's line of knives for use on textile machinery.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1115. TEXTILE WRAPPING MACHINES — Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfold, most protective package made.—HAYSSEN MANUFACTURING CO., Sheboygan, Wisconsin.

1122. BALING PRESSES—Bulletins available describing this company's line of motor-driven and hydraulic baling presses for finished goods, textile fibers, wool, and waste of all kinds.—LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wis.

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from Downtime
and Damaged Products

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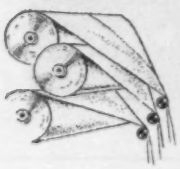
METAL DETECTOR



HOW much are downtime and damage to products costing you? Enough to pay for an RCA Electronic Metal Detector in a few months, no doubt, and then your profits will be protected at lowest possible cost for many years to come.

Especially designed for the textile field, this detector has high sensitivity. It may be employed with woven and knitted material traveling at speeds from 10 to 1000 feet per minute, with full inspection sensitivity. Finding particles the eye could never see, the device sounds an alarm and/or stops the traveling material, or causes dye or chalk to mark the spot.

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SUPPLIERS News

WHAT THEY ARE DOING

James R. List has been appointed to the sales and engineering staff of **Alvey Conveyor Mfg. Co.,** and will

Mr. List

serve in a sales capacity for Alvey engineered conveyor systems with headquarters in Philadelphia, Pa.

Three appointments in the Textile Resins Department were announced recently by **American Cyanamid Co.:** Alexander L. Logan was named group leader of sales application; William N. Nakajima, group leader of development; and George Switlyk, group leader of the testing section.

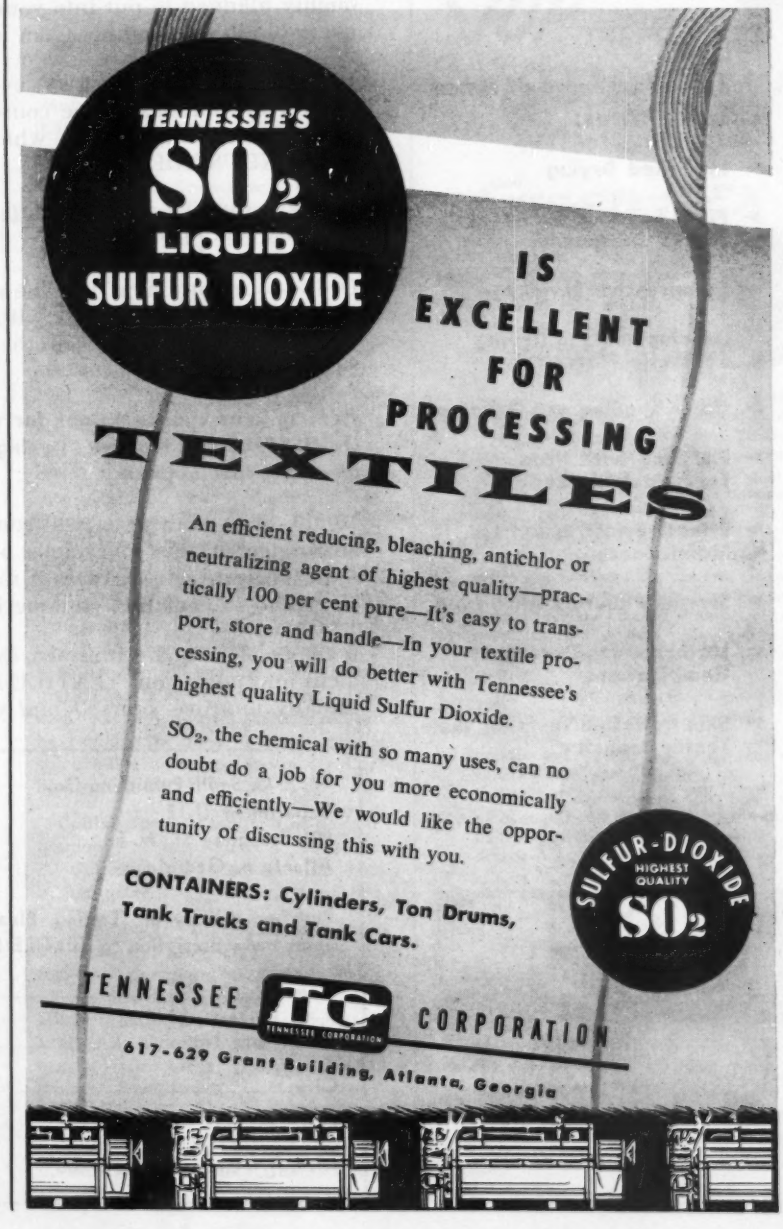
American Monorail Co. has appointed C. E. Barner, formerly Chicago district manager, to assistant sales manager of the Western Division; George H. Gerding, formerly sales engineer of the Philadelphia district, manager of the Chicago district; and Frank N. Becker, formerly in charge of research and development, manager of production and engineering of Landahl Conveyor Co. * * * L. Payne Helbert has been transferred from the industrial division at Charlotte, N. C., back to the Cleveland office. John L. Brown will replace Mr. Helbert as sales engineer at Charlotte.

Robert T. Regan, Buffalo, N. Y., district manager for **Anheuser Busch, Inc.,** has been transferred to Philadelphia as district manager.

Ansul Chemical Co.'s industrial firefighting school at Marinette, Wis., has scheduled twelve three-day classes from May 23 to Sept. 21. The courses are open to industrial plant safety personnel and others interested. Students will be taught the latest techniques in fire extinguishment with dry chemical equipment and other agents. Applications are being accepted now on a first-come first-served basis through the Director Fire School, Ansul Chemical Co., Marinette, Wis.

Hobart C. Ramsey, chairman and chief executive of the Worthington Corp., has been elected to the board of directors of the **Armstrong Cork Co.,** succeeding the late C. Dudley Armstrong.

Resignation of H. R. Plummer, vice-president in charge of cost operations, after 27 years' service, was announced recently by **Barnes Textile Associates, Inc.** Health reasons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SO2
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IS EXCELLENT FOR PROCESSING
TEXTILES
An efficient reducing, bleaching, antichlor or neutralizing agent of highest quality—practically 100 per cent pure—It's easy to transport, store and handle—In your textile processing, you will do better with Tennessee's highest quality Liquid Sulfur Dioxide.
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For further information use Handy Return Card, Page 181

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TEXTILE INDUSTRIES'

"Dyeing, Bleaching and Finishing Manual"

Your copy of this outstanding compilation of essential facts has been carefully prepared by TEXTILE INDUSTRIES' editors to provide you and other mill men with up-to-the-minute specialized information on the most important phases of wet processing.

This exclusive manual of 185 full size pages has been most thoroughly planned to put into your hands a wealth of material not available in one volume from any other source *at any price.*

Just look at some of these chapter titles:

- ► **Infra-Red Drying**
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- ► **Compressive Shrinkage**
- ► **Developments in Dyeing Synthetic Fibers**
- ► **Color Shading and Grading**
- ► **Finishing with Urea Formaldehyde Resins**
- ► **Effective Instrument Maintenance**
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SUPPLIERS News — WHAT THEY ARE DOING

prompted Mr. Plummer's resignation.

New titles for key personnel of the **Becco Chemical Division** of the Food Machinery and Chemical Corp. are: F. A. Gilbert, vice-president and assistant division manager; J. F. Shea, vice-president in charge of sales; and W. J. Wetzel, controller.

A pilot plant is being constructed by the **Celanese Corp. of America** at the Burlington, N. C., spun yarn plant for the purpose of evaluating, producing, and supplying data for fiber processes in various non-woven constructions, in conjunction with the company's plan for expansion of the industrial application of its fibers.

Welby C. Whitin has joined the sales staff of **Chemstrand Corp.** He was formerly with Wannalancit Textile Co. * * * Also with Chemstrand, in the Acrilan sales division specializing in broad woven goods, is Charles W. Carvin, Jr., who was formerly vice-president in charge of merchandising and selling for Charles W. Carvin Co., Inc.

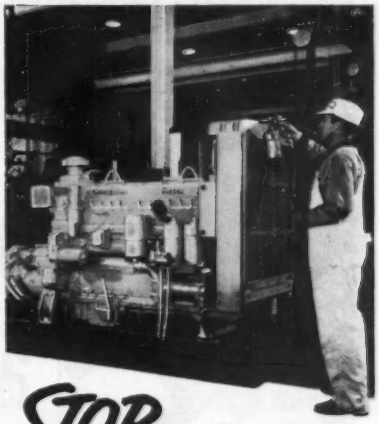
New president and general manager of **Cocker Machine & Foundry Co.** is John Cocker, III. Other new officers include John C. Bodansky, vice-president and treasurer; A. G. Myers, second vice-president; and L. B. Hollowell, secretary.

Sill Industries announce that installations of their processing heating equipment henceforth carry a complete and unconditional guarantee of satisfactory performance. Carbomatic Corp.'s gas-fired heating equipment as well as Sill electric radiant heaters are included in the guarantee since Sill acts as distributor for Carbomatic.

Collins Bros. Machine Co. has announced the retirement of Benjamin F. Collins, vice-president and part owner, after fifty years with the firm.

New officers at **Curtis & Marble Machine Co.** are: Albert C. Marble, formerly president, elected chairman of the board of directors; Walter E. Hildick, president and treasurer; and Walter F. Woodward, formerly general sales manager, vice-president in charge of sales.

Oscar W. Kaalstad has been appointed eastern sales representative of the **Dewey & Almy Chemical Co.** His territory will include New Jersey,



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PROVIDES TOUGH, RESISTANT PAINT FILM FOR METAL, WOOD OR CONCRETE SURFACES!

TEXTILE manufacturers are using "Speed Rex" to lick corrosion problems caused by condensation. "Speed Rex" is the *toughest* all-purpose coating ever formulated for painting machinery, tools, conveyors, benches, guard rails and most other plant equipment.

AND "Speed Rex" resists *hard knocks* as well as moisture and chemicals. You paint less often when you standardize on "Speed Rex" because rough, tough physical abuse bounces off the rugged hide of this protective coating.

THE reason "Speed Rex" can take so much punishment is Devran . . . an Epoxy Resin that gives paint greater wear-ability and resistance to acids, alkalis and moisture.

GET full information on how to solve condensation problems and other painting problems in the textile industry. Send coupon today!

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the world's most famous elastic yarn—made in a complete range of sizes and tensions for knitting, weaving or shirring elastic fabrics.

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the first extruded latex thread—long a favorite for all types of webbing. Available in regular and in the heat-resistant compound pioneered by U. S. Rubber to meet postwar laundering requirements.

MIRASPUN...

the supersoft, superfine elastic yarn—developed and made only by United States Rubber Company, vital for knitting or weaving the lightest and sheerest of fabrics.

REVTEX...

"U. S." trademark for one of the original cut-rubber threads—used for many generations by industry in all kinds of narrow elastics. Also available in the heat-resistant compound.

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UNITED STATES RUBBER INTERNATIONAL

159 East 42nd Street, New York 17, N. Y.

Maryland, Delaware, Pennsylvania, Virginia, The Carolinas, Georgia, and Florida.

Recently appointed assistant to the nylon district sales manager at Charlotte, N. C., for the Textile Fibers Department of **E. I. du Pont de Nemours & Co.** is Otto F. Long.

New technical representative for the Textile Colors Division of **Interchemical Corp.** with headquarters in

Mr. Morrison

Pawtucket, R. I., is Haven A. Morrison.

Directors of **Robert Gair Co., Inc.** have approved agreements under which the company will acquire the assets and assume the liabilities of Southern Advance Bag & Paper Co., Inc., and the Great Southern Box Co., Inc. * * * Norman F. Greenway, senior vice-president of the folding carton division, has been elected to the company's board of directors.

Percy H. Helie Co. is the name of a new firm handling sales of textile chemical specialties. Headquarters are in Worcester, Mass. Company president Percy H. Helie formerly was with Burke Laboratories.

A new building expected to cost about $1.5 million dollars is under construction by the **Gaston County Dyeing Machine Co.**

General Textiles, Inc., mill agents, Charlotte, N. C., has opened offices at 101 W. 31st Street, New York, N. Y., which will be the main sales office and showroom. The company is selling agent for a number of mills. Lawrence J. Williams is president, treasurer, and sales manager.

L. L. Shailer, Sr., and R. E. Score, Sr., have been named product engineers in charge of sales development of hydrophilic polymers and of surfactant materials, respectively, in **B. F. Goodrich Chemical Co.'s** general chemicals sales department. * * * F. L. McNabb has been appointed manager of sales development of the Hycar and rubber chemicals department of B. F. Goodrich Chemical Co. Formerly technical service manager of the department, Mr. McNabb became associated with the company in 1935 and has held many technical positions in the general and research chemical laboratories and processing division.

A free floor survey by a trained floor-treatment expert is a new aid offered mills and other interested organizations by the **Hillyard Chemical Co.**

SUPPLIERS News — WHAT THEY ARE DOING

Jack Frye has resigned as president of **General Aniline & Film Corp.** John H. Hilldring, executive vice-president, has been selected as his successor.

Larry J. Weltman has joined **Intertex Corp.** as executive vice-president and general manager. Mr.

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1 MACHINE DYES ALL 3

TOPS, PACKAGES, RAW STOCK

This machine is typical of the time-and money-savings you get from Gaston County's continuous pioneering achievements.

By simply changing carriers, this one machine dyes either raw stock or wool tops—or packages, cones, springs, tubes, roving and cheeses—natural or synthetic.

Made to ASME requirements, no other machine can match it for *complete* flexibility of operation and rugged construction. Whatever your dyeing problem, large or small, Gaston County engineers will work with you to solve them efficiently and economically. Write, wire or phone us today for consultation or illustrated literature.

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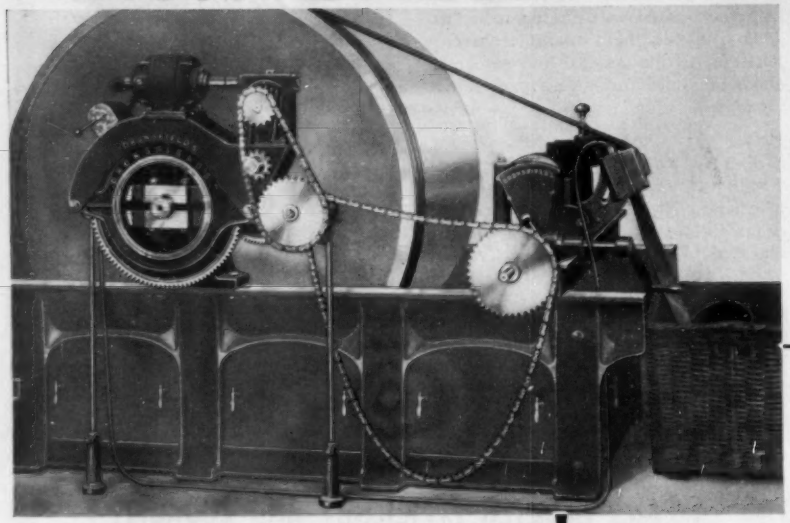
Perfect CARD MOUNTING



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STAONAL—the crayons you see advertised in THE SATURDAY EVENING POST — are gritless, waterproof and permanent under all weather conditions. Get the right one for your job. There's one for every purpose and surface — for paper, metal, glass, crockery, leather, cloth, rubber, cellophane, and for soft or hard, wet or dry lumber.

For textile marking—get Atlantic Textile Mill Crayon and **No. 295** Washable Silk Crayon.

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Harnesses Cleaned in Place Without Binding Warps

One Pennsylvania textile mill was troubled with heavy deposits of lint, sizing, and dust that built up on their reeds and harness assemblies. Solvent cleaning was ineffective because the sticky soils would drop down into the heddles and cause the warps to bind.

Then, the local Oakite Man suggested spraying the parts with a solution of Oakite Composition No. 12. Results were immediate: Soils and gummy deposits were thoroughly removed, and surfaces dried down smooth and clean with just the right "slip". Oakite Composition No. 12 provided temporary rust prevention, too, and greatly reduced subsequent build-ups of lint and sizing deposits. For more details, write Oakite Products, Inc., 26C Rector Street, New York 6, N. Y.

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MATERIALS · METHODS · SERVICE

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SUPPLIERS News
WHAT THEY ARE DOING

Weltman recently resigned as sales manager of the Crescent Corp. * * * Intertex recently acquired the Richard Borden Mills, Fall River, Mass., which are being liquidated.

Kelco Co. has announced the moving of their offices to new and larger quarters at 120 Broadway, New York 5, N. Y.

Harley G. Morton has been appointed fiber technologist to work with textile mills and other industries on ramie and kenaf, fibers which are being grown today in Florida. His operations come under the **Everglades Experiment Station** at Belle Glade, Fla. Mr. Morton formerly was vice-president and general manager of John N. Stearns & Company, silk, rayon, and cotton broad loom weavers. Later he was associated with the textile group of the Defense Production Administration.

Don O'Hair has been appointed sales manager for the **Livingstone Coating Corp.**; he will call on textile mills in North Carolina and Virginia.

Appointment of two new officers was recently announced by **Meinhard & Co., Inc.**: Vincent J. Fiorda is treasurer; Charles W. McCord, formerly treasurer, is vice-president.

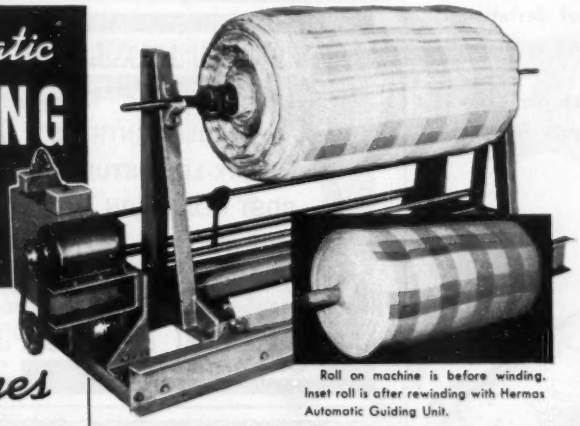
Over 7,500 different cylinder selections are now carried in stock for shipment to meet the needs of power cylinder users by **Miller Fluid Power Co.**, manufacturer of air and hydraulic cylinders, boosters, and accumulators.

Construction of a multi-million-dollar plant to produce organic isocyanates at Moundsville, W. Va., was announced recently by **National Aniline Division.** Allied Chemical & Dye Corp. Organic isocyanates are a new class of synthetic organic chemicals with potential as raw materials for the manufacture of improved synthetic rubbers, resins, plastics, adhesives, surface coatings, and fibers.

J. M. Duckett has been appointed manager, Textile Resin Department, **North American Cyanamid Ltd.**

President of the **Pennsylvania Salt Manufacturing Co.**, George B. Beitzel,

Automatic
GUIDING UNIT



Roll on machine is before winding. Inset roll is after rewinding with Hermas Automatic Guiding Unit.

Assures
STRAIGHT-WOUND BEAMS

Write for complete details

Now get straight, evenly wound rolls of cloth, paper, or plastic batched material.

Use this let-off guiding unit in front of any machine or process where the material must enter straight and wind up on the other side STRAIGHT.

Operation is simple. When set to the line of selvage travel the sensing device actuates the automatic guiding unit electrically which, in turn, moves the carriage to keep the material running straight and smooth.

HERMAS MACHINE CO.
Warburton Avenue
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BORN 30 YEARS TOO SOON FOR GAS

Gone are the days when somebody had to sweat over a hot coal-shovel in the basement of your mill—at least they should be gone!

Gas is the answer to a lot of problems: The fuel itself costs less than coal; there is no coal or ash handling and no flues to keep clean.

Labor costs are materially reduced and there is also less maintenance on equipment and fewer shut-downs for repairs.

McBurney installs and services burners, including gas, oil, or combination gas-oil burners. Your present firing systems can be retained in standby capacity.

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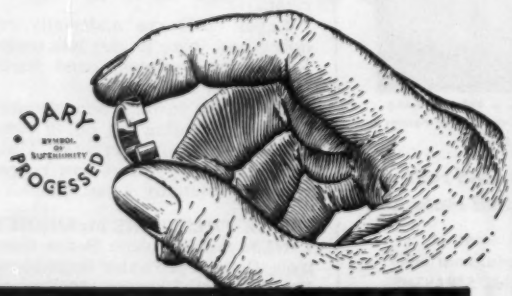

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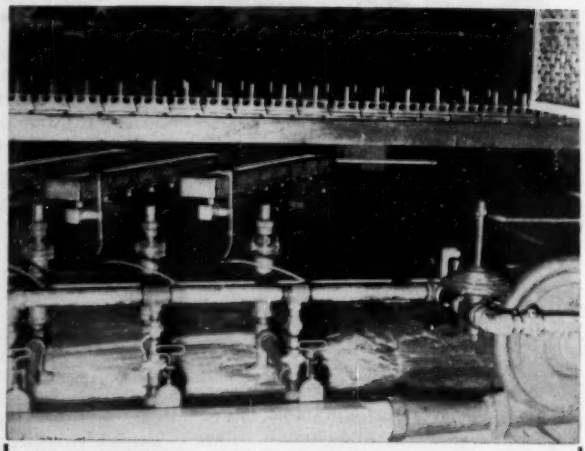
CRAWFORD "JACK" RHYMER, BOX 2261, GREENVILLE, S.C.



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SUPPLIERS News
WHAT THEY ARE DOING

has resigned, effective later this year, after completing 25 years of service with the company. William P. Drake was elected executive vice-president.

Pittsburgh Plate Glass Co. has appointed J. C. Fair, Jr., sales representative of the new sales branch of the Fiber Glass Division, in Charlotte, N. C.

Charles G. Stover Co. has announced the appointment of R. Michael Turner as associate to represent **H. & P. Spool & Bobbin Co.** in

Mr. Turner

the state of South Carolina, with headquarters in Clinton. Mr. Turner will also represent **Marquette Metal Products Co.** for the sale of roller bearing spindles in South Carolina.

Paul P. Davis, former vice-president in charge of sales, has been elected president and treasurer of the **McLean Trucking Co.** following the resignation of M. P. McLean, president and founder of the firm. The change in management will not affect the application of the carrier to acquire control of the S. C. Loveland Co., an Atlantic Coast water carrier, or the plans to operate a sea-land service between New England and the Southeast.

Pittsburgh Corning Corp. has announced a 1½ million dollar expansion program scheduled for completion by mid-1955. As the first step in the program, production of Foamglas will be increased by 25%. Plans include installation of a new production line at the company's Sedalia, Mo., plant and the construction of a 50,000-sq ft warehouse.

Ballagh & Thrall have been appointed export managers for **Proctor & Schwartz, Inc.**, to handle overseas sales of Proctor's drying and textile machinery.

Appointment of W. H. Parkinson as advertising, publicity, and sales pro-

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As Production Engineers we specialize in the utilization of

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Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"We have employed on various occasions the services of American Associated Consultants. We have always found their work satisfactory."
A LARGE KNIT GOODS CONCERN

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

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Heavyweight Champ

that takes any beating you can give it

It's the strongest hand truck ever built—more than you need for ordinary loads. Capacity with metal or molded plastic wheels, 6000 pounds, with cushion tread, rubber tire, 3000 pounds. Platform of steel or selected hard wood.

Comparative tests show that this truck, fully loaded, starts and rolls with but slightly more than half the effort required to move the average factory truck.

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V-BELT QUIZ

for Maintenance ENGINEERS

WHAT DO YOU DO WHEN ONE OF YOUR MATCHED V-BELTS BREAKS?

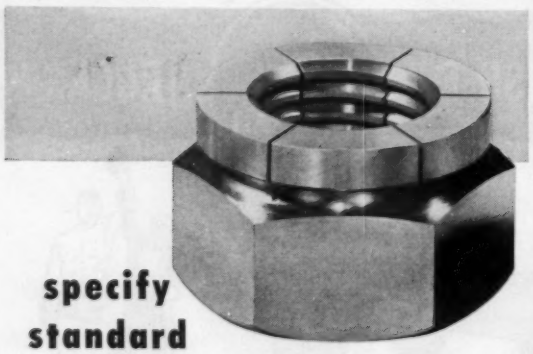
Suppose you're using a 6-belt multiple drive and No. 3 belt breaks. If continued use is essential and if there's no apparent slippage, it's safe to run on 5 belts for a short time. However, as soon as possible, a complete new set of matched belts should be installed. (Sales plug: Durkee-Atwood V-belts are Iso-Dynamically matched on a vertical matching machine for uniformity).

FREE COPY! *Handy Tips on V-belts and V-drives*

See your D-A distributor or write Dept. TI-5 for catalog that includes conversion tables, engineering data, latest Rubber Manufacturers Association horsepower ratings, drive selections and helpful Do's and Don'ts of V-belt operation.

DURKEE ATWOOD V-BELTS

DURKEE-ATWOOD CO.
MAin 0441 • Minneapolis 13, Minnesota



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FLEXLOC DESIGN FEATURES	one-piece, all-metal construction	lock and stop nut in one
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DO YOU KNOW? Because they are of one-piece, all-metal construction, FLEXLOCS can be used in temperatures to 550° F. Nuts lacking this design feature have more restricted temperature ranges and applications. And FLEXLOCS are stocked in a full range of sizes from #4 to 2" by authorized industrial distributors. Write for Bulletin 866. STANDARD PRESSED STEEL CO., Jenkintown 34, Pa.

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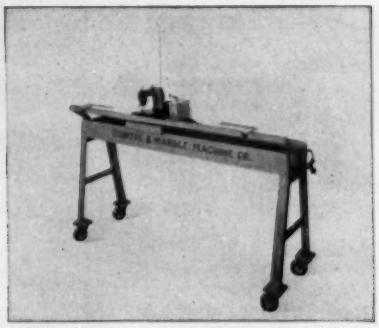

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Railway Sewing Machine Featuring

1. Modern Design with welded frame construction.
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3. Simplified operation. A flick of the single hand lever controls the sewing cycle and return of the Head.
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5. Motor and Drives mounted below slide for safety and increased vision.
6. New high speed Head, which features automatic lubrication, low maintenance, and easy operation.

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Start practicing economy early in life and you'll be ahead of the crowd. The mill operator who thinks of getting the most from his operation and saving time and money naturally turns to Lazenby winders. Their proven economy, and precision workmanship assure you of the best production returns. Send us a small supply of your yarn and we'll wind and return with Test Wind Report and Catalog.

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MILTON aluminum alloy Tricot and Section Beams feature CONTINUOUS WELDED CONSTRUCTION

Drop-forged, heat-treated aluminum alloy heads and extra heavy barrels withstand pressures of nylon and rubber warps.

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No. 54-S (Steel Beams) No. 49-A (Light Metal Beams)

MILTON MACHINE WORKS, INC.
MILTON • PENNA.

motion manager was made recently by **Quaker Rubber Corp.** He had served as assistant advertising manager for the company for the past year and was promoted to fill the vacancy created by the transfer of W. M. Taylor to the staff of the parent organization, **H. K. Porter Co., Inc.** Mr. Taylor will be in charge of advertising, publicity and sales promotion for both Quaker Rubber Corp. and **Quaker Pioneer Rubber Mills,** a recent acquisition of H. K. Porter Co.

Raymond H. Styles, formerly vice-president, has been elected president of **Redman Process Corp.**

Albert R. Callens, for several years in the foreign sales department of Whitin Machine Works and previously with Grafa, S A, of Buenos Aires, has joined the **A. M. Romero Corp.,** exporters, to head the textile machinery and accessories division.

Jerry J. Craig has been elected secretary of **Sun Chemical Corp.** * * * Frank Anderson is technical sales

Mr. Anderson

representative in Virginia and North Carolina for the **Warwick Chemical Division** of the company.

New officers of **Sarco Co., Inc.** are: H. L. Simmons, president and treasurer; R. W. Cumming and A. Milnes, vice-presidents; L. Barfus, assistant treasurer; and M. Mohr, secretary. * * * Those of **Sarcotherm Controls, Inc.,** are: L. Barfus, president and treasurer; R. Stevens, vice-president; H. L. Simmons, assistant treasurer; and F. Schneiderman, secretary. Retirement of Clement Wells, founder and president of both companies, occasioned the election of new officers.

George Wrigley has retired as a partner of **J. E. Sirrine Co.** George Wrigley, Jr., has been elected to the Executive Committee to fill the vacancy caused by the retirement of his father. New officers elected are: A. S. Bedell, chairman, executive committee; R. R. Adams, vice-chairman; and A. D. Asbury, secretary.

SUPPLIERS News — WHAT THEY ARE DOING

Edward H. Grosse has been appointed research group leader of the textile section of the **A. E. Staley Manufacturing Co.** Mr. Grosse was formerly employed by Dan River Mills. * * * The company has an-

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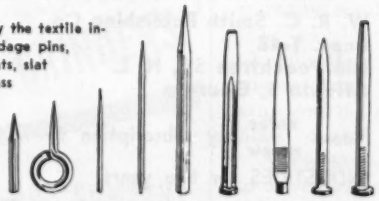

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Volume production by precision methods permits attractive prices on all types. Prompt deliveries. W. H. Bagshaw Co., Inc. (Est. 1870) 42 Pine St., Nashua, N. H.

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IDENTIFICATION BANDS
for your
ROVING CANS

IDENTIFICATION BANDS OF UNITED ELASTIC WEBBING FEATURE

- the most in service
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If you will specify the can diameter; and the color, width and quantity of bands desired; we will submit samples and quote prices.

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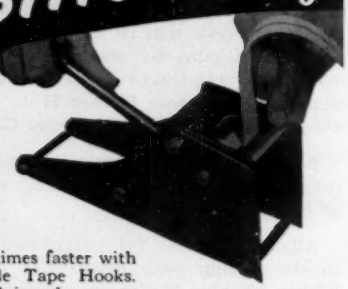
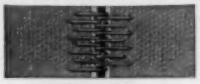


SPINDLE TAPE LACING EQUIPMENT



Lace spindle tapes 10 times faster with Clipper No. 25 Spindle Tape Hooks. Tapes can be prepared in advance so frame is shut down only long enough to place new tape on the pulleys and join ends with connecting pin. Tapes run true—last longer—run smoother—require less tension—VIBRATION IS ELIMINATED

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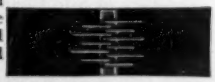
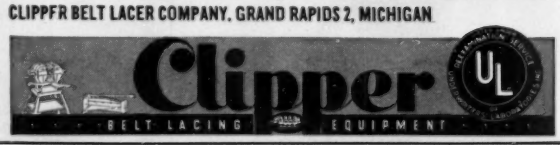
Lace condenser tapes with Clipper No. 25 Condenser Tape Hooks. Clipper laced tapes, prepared in advance, can be installed in a fraction of the time required for endless tapes. Tape may be purchased in the roll at considerable saving.



CLIPPFR BELT LACER COMPANY, GRAND RAPIDS 2, MICHIGAN



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SUPPLIERS News
WHAT THEY ARE DOING

nounced plans for the construction of a $200,000 warehouse and sales office building in the 4700 block of West Augusta Blvd., Chicago.

Orville C. Hognander, vice-president of **G. H. Tennant Co.,** has been elected to the board of directors.

Recent elections at **Warner & Swasey Co.** were: Charles J. Stilwell to chairman of the board; Walter K. Bailey, president to succeed Mr. Stilwell.

E. Kent Swift, Jr., director of research for **Whitin Machine Works,** has been elected a member of the firm's board of directors.

Saco-Lowell Shops have named two directors: Jerome Preston, partner in Preston Moss & Co.; and Charles F. Hovery, partner in Herrick, Smith, Donald, Farley, and Ketchum. W. Frank Lowell was named senior vice-president and F. Gorham Brigham, Jr., was elected treasurer.

Executive Views

(Continued from page 81)

sounds like a "natural" team.

Jelleff's Case

We have said before in this space that the time is long since past when you could be successful in the textile industry by merely knowing how to run a textile mill. Today you have to be somewhat of an authority on any number of Federal regulations, what is going on in congress, what the NLRB is trying to do to you, and you must also try to remember the names of as many employees as possible on your payroll. Still another phase of activities which must be inspected from time to time is Federal courts, not to mention the State courts.

A few weeks ago there was tried in a Federal court in Washington, D. C., a case involving the award of some sixty-five thousand dollars in damages because a Washington department store had allegedly breached a warranty of safety in selling a garment which

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- G-C NON-MELTING TWISTER RING LUBRICANT
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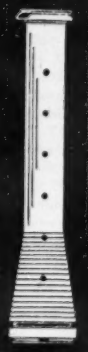
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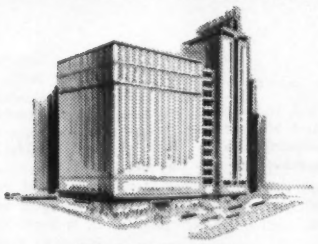
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DINKLER HOTELS
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CARLING DINKLER, JR., *Vice President*

caught fire and caused serious burns. This particular case was entitled *Braden vs. Jelleff's*, and it had absolutely no connection with the Flammable Fabrics Act which was passed by the last session of congress. We mention this point simply to confuse you from the very outset.

The Jelleff's Case was a civil suit which involved the sale of a "brunch" coat. It seems that the plaintiff leaned across an electric stove to pick up a canister or some other object at the rear, and as she did so the sleeve of the brunch coat came in contact with the open eye of an electric burner. The result was that the coat caught on fire and the plaintiff received bad burns.

The serious part about this case, in addition to the bad burns which the plaintiff suffered, is that if it stands in the higher courts there seems to be no limit to the liability of a department store, to the cutter who sold the store the garment, and to the mill which sold the cutter the cloth.

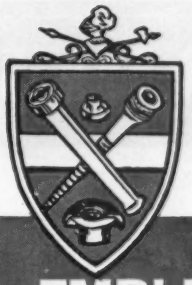
The evidence at the trial was to the effect that the coat was made from print cloth with a thread count of about 92x80, which is about how an 80-square print cloth finishes out. How far back can such suits go?

It is obvious that almost any textile material will burn if subjected to sufficient heat, and it would seem obvious that no manufacturer would be held liable because a textile fabric came in contact with the burner of an electric stove.

Could such suits go back from the department store, to the garment manufacturer, to the converter, to the bleachery, to the grey goods mill, to the yarn mill, to the cotton shipper, to the cotton gin, and finally to the cotton farmer?

If it can go back this far, could the farmer then turn around and sue the man who sold him the cottonseed?

In the event you get completely relaxed and feel that you have solved all the problems at your particular mill, how about thinking this one over for a while? Don't say we didn't give you anything to worry about.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Anderson Shields are dependable protection against chipping, splitting, and breaking of spools, bobbins, and paper caps. Even the most minute details are carefully worked out to make Anderson the highest in precision, the smoothest in finish, the best in performance. The Anderson Emblem is your assurance of the finest shields you can buy.

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COTTON

IS IN THE NEWS

As fabric for clothing and household use, cotton has been a favorite for centuries. But today, new developments in spinning, weaving, and chemical treatment have made cotton a *front page* item.

To its basic qualities of strength, absorbency, and washability, cotton has added undreamed-of new characteristics. It can be made shrink-proof, mildew- and rot-proof, water repellent, wrinkle- and dirt-resistant and even permanently pleated.

As a result, cotton is finding new uses in many fields. New weaves and textures have made it a year-round fabric for use in clothing and home decoration. It has assumed new significance in industrial operations. And its new qualities are making cotton, more than ever, indispensable to our defense program.

On clothes line, fighting line, or assembly line, today's cottons are making headlines.

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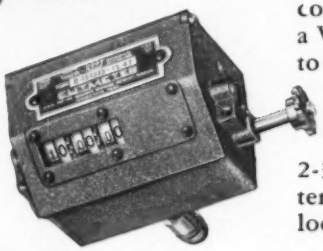
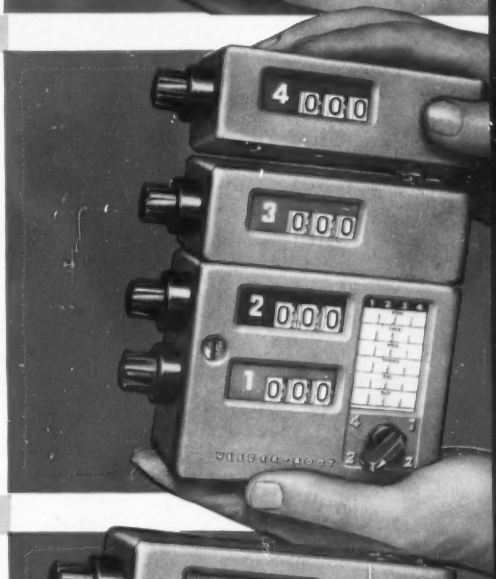
In Spinning...

New Veeder-Root 2-3-4 Convertible Hank Counters are easier to read, reset and maintain. And they are built to give you years of accurate facts-in-figures that help toward closer production *Count*rol.

Weaving...



Here's the combination to count on . . . *on every loom* . . . a Veeder-Root Cut Meter (left) to light a light or stop the loom at a pre-set woven yardage, *assuring uniform cuts of cloth* . . . and a new Veeder-Root 2-3-4 Convertible Pick Counter to keep accurate count of loom production on each shift.



Knitting...

For any type of knitting machine, Veeder-Root makes the counters you need to control your production. These new Revolution Counters, with the same advantages as the new 2-3-4 Convertible Hank and Pick Counters, can also be geared to record racks, or racks and tenths. In Fact, In Any Department of Any Type of Textile Mill . . .

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